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REVIEW OF ARMY OFFICER EDUCATIONAL SYSTEM.

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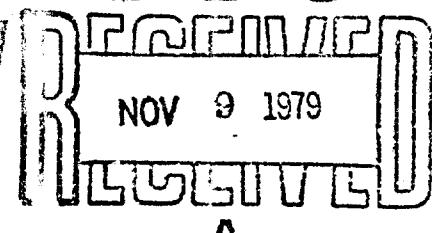
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LEVEL III

VOLUME III

ANNEX A - GOOD PROGRAMS

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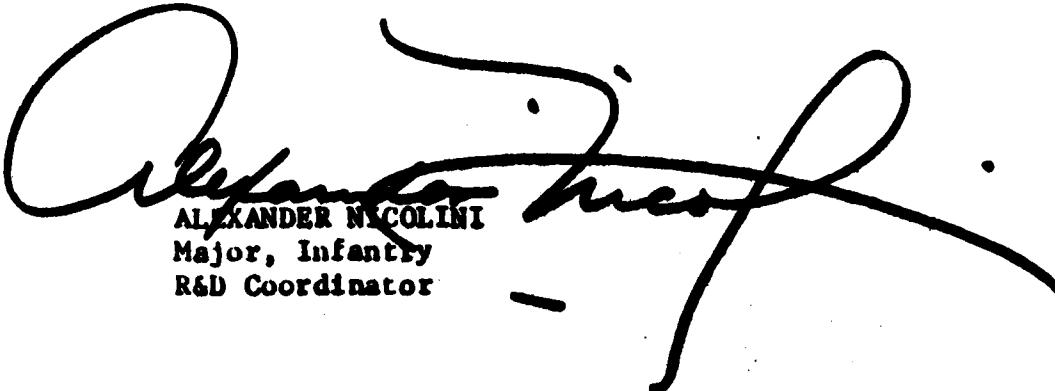
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ALEXANDER NICOLINI
Major, Infantry
R&D Coordinator



ANNEX A - GOOD PROGRAMS

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION TO GOOD PROGRAMS	A-1
II. FACULTY	
Consulting Faculty Program (C&GSC)	A-2
Adjunct Faculty (MCC&SC)	A-4
Faculty Chairs Program (NWC)	A-6
Faculty Development Program (USAOC&S)	A-8
Armor Officer Advanced Course Faculty Advisor Program (USAAS)	A-11
Armor Officer Basic Course (USAAS)	A-13
Enlisted Instructors for Officer Classes (USAIMA)	A-14
Training of USAOC&S Civilian Work Force (USAOC&S)	A-16
Educational Program for Civilian Instructors (USASSS)	A-19
Program for Development of Faculty Expertise (USAWC)	A-22
Extended Assignment for Air University Faculty Members (AU)	A-27
Instructor Training by Air University Instructor Training Course (AU)	A-31
III. STUDENTS	
Junior Officer Retention Program (USAAGS)	A-36
Junior Officer Retention (USAES)	A-38
Junior Officer Retention (USAOC&S)	A-39
Allied Officer Program (C&GSC)	A-44
Student Officer Wives Program (USAAS)	A-50
Physical Fitness and Weight Control (MCC&SC)	A-52
Educational Counseling Program (USATSCH)	A-53
IV. CURRICULUM	
Research and Electives Programs (NWC)	A-55
Current Attitudes Seminars (NWC)	A-56
Senior Officer Debriefing Program (AWC)	A-57
US Army Military History Research Collection (AWC)	A-59
Narrative History of the Correspondence School (ICAF)	A-61
Educational Approach and Philosophy (MCC&SC)	A-63
Strategy and Strategic Studies (C&GSC)	A-65
Three Track System of OR/SA Instruction (C&GSC)	A-66
USACDC Creative Thinking Award Program (USACDC)	A-68
Exercise North Flank (AFSC)	A-69
Foreign Internal Defense and Development Planning (AFSC)	A-71
Staff Action Papers (AFSC)	A-73
Automatic Data Processing (AFSC)	A-76

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Research and Electives Programs (NWC)	A-55
Current Attitudes Seminars (NWC)	A-56
Senior Officer Debriefing Program (AWC)	A-57
US Army Military History Research Collection (AWC)	A-59
Narrative History of the Correspondence School (ICAF)	A-61
Educational Approach and Philosophy (MCC&SC)	A-63
Strategy and Strategic Studies (C&GSC)	A-65
Three Track System of OR/SA Instruction (C&GSC)	A-66
USACDC Creative Thinking Award Program (USACDC)	A-68
Exercise North Flank (AFSC)	A-69
Foreign Internal Defense and Development Planning (AFSC)	A-71
Staff Action Papers (AFSC)	A-73
Automatic Data Processing (AFSC)	A-76

	<u>Page</u>
Systems Engineering of FAOAC (USAFAS)	A-79
Redesigned Chemical Officer Advanced Course (USACMLCS)	A-82
General Educational Approach (USWAC)	A-84
Integrated Instruction Program (USAADS)	A-85
Program for Reducing the Work Week at the AOAC (USAAS)	A-88
Air Defense Seminar Program in the Advanced Course (USAADS)	A-90
Base Development Planning Exercise (USAOC&S)	A-92
Adjutant General Exercise (USAAGS)	A-95
Brigade Map Maneuver Exercise at AOAC (USAAS)	A-96
Brigade Stability Map Maneuver (USAAS)	A-98
Staff Study Program in the Advanced Course (USAADS)	A-100
"Intimate PSYOP" (USAIMA)	A-101
Exercise GOBBLER WOODS (USAMIA)	A-103
Practical Training in the WOBC/OCC Courses (USAS/TC Fort McClellan)	A-106
EOBC Maintenance Management and Supply Package (USAES)	A-107
Systems Engineering of FAOBC (USAFAS)	A-109
Mixed Seminars in Air War College, Air Command and Staff College, and Squadron Officer School (AU)	A-113

V. METHODS OF INSTRUCTION

Experimentation in Instruction Program (USAIS)	A-115
Views of Dr. Vincent P. Cieri on Innovations in Training (USASC&S)	A-118
USAIS Individual Learning Center (USAIS)	A-120
Application of Various Media to Diversify Methods of Instruction (USAFAS)	123
Use of Computer to Assist in Solution of Engineering Problems (USAES)	A-125
Application of Computer Assisted Instruction to the Basic Electronics Course (USASC&S)	A-126
Common Basic Electronics Training (USASC&S)	A-129
ETV Usage (Fort Gordon)	A-131
Philosophy, Approach, and Practices in Squadron Officer School (AU)	A-133
Developmental Reading (USAAGS)	A-136
Effective Listening Training (USAAGS)	A-137
Memory Development Instruction (USAAGS)	A-138
ICAF Simulation Effort (ICAF)	A-139
Combined Arms Tactical Training Simulator (USAIS)	A-141
Development and Use of Training Devices and Simulators (USAFAS)	A-143
Large Scale Indirect Fire Adjustment Simulator (USAIS)	A-145
Laser Tank Gunnery Trainers (USAAS)	A-146
Laser Device for M16 Rifle (USAIS)	A-148
M34 Driver Trainer (USAAS)	A-149

VI. EVALUATION

USAMC Student Evaluation System (AWC)	A-150
Evaluation and Motivation of AOAC Students (USAAS)	A-152
Officer Comprehensive Evaluation (USAAS)	A-153
EOBC "Go/No-Go" Grading System (USAES)	A-155
Performance Examinations in Evaluating Students (USAIS)	A-156
FTX Performance Testing of SOBC Students (USASC&S)	A-157
Performance Testing (USATSCH)	A-158
Proficiency Exemption Program (USATSCH)	A-160
Validation Program in the Advanced Course (USASC&S)	A-162
Validation Program in the Advanced Course (USAES)	A-163
Finance Officer Advanced Course Validation Program (USAFS)	A-164
Exempted Training in the Finance Officer Basic Course (USAFS)	A-165
Use of the Diagnostic Test in the Advanced Course (USAES)	A-166
Attendance of AOAC Students in Special Subjects Classes (USAAS)	A-167
Use of Diagnostic Tests with Electives and Self-paced Instruction (USAIS)	A-171
Diagnostic Testing (USAFACTS)	A-174
Feedback Program for MOS Producing Courses (USAMMCS)	A-175
Confidence Questionnaires in Evaluating Instruction (USAIS)	A-179
Quality Control (USAES)	A-180
Automated Means for Rating Classroom Recitations (C&GSC)	A-182
Student Input to the Academic Evaluation Program (AFSC)	A-185
Educational Testing Service to Check Non-resident Instruction (AWC)	A-189
Student Evaluation Program (AU)	A-190

VII. ELECTIVES

TOAC Electives Program (USATSCH)	A-193
Elective Program in the Infantry Officer Basic Course (USAIS)	A-196
Electives Program (USASC&S)	A-197
Controls Over Non-resident Instruction Electives (USASC&S)	A-202
Advanced Course Electives Program (USAES)	A-203

VIII. CIVILIAN EDUCATION

Research Assistance Program (USAIMA)	A-205
Master of Military Art and Science Program (C&GSC)	A-209
Graduate Elective Degree Completion Program (C&GSC)	A-214

	<u>Page</u>
Follow-on Graduate Program (USAADS)	A-219
Integration of USAIS Educational Effort with Post GED Program (USAIS)	A-222
Electives Program and Relationship with Community College (USAAS)	A-224
Program to Attain MBA in Communications Management (USASC&C)	A-227
Air Force Management of the Civilian Education Program (AFIT)	A-229
The Army Cryptologic Institute (USASATC&S)	A-231
Tactical Operations Center (USASATC&S)	A-234

IX. ACADEMIC MANAGEMENT

Fiscal and Management Control Over Educational Costs (USAES)	A-237
USATSCH Board of Visitors (USATSCH)	A-239
Establishment of Department of Graduate Studies and Research (C&GSC)	A-241
Microfiche Information Retrieval System (USAMMCS)	A-243

5

I - INTRODUCTION TO GOOD PROGRAMS

1. During this review, I had an opportunity to observe on-going activities at each of our schools. These visits served to convince me that our academic programs are not stagnant; on the contrary, there is a lot of innovation and progress. This annex stands as an informal proof of this favorable condition.
2. The purpose of this compilation is to make available, on a wide basis, a list of such activities; and to provide information on them in sufficient depth so that Commandants, DI's, and academic staffs can determine whether a particular program might merit incorporation into their own college activities. To this end, I have requested that the write-ups on the programs be designed to inform other schools about these activities, not to inform or "sell" the DA or CONARC staff. I have asked the sponsoring school to submit the fact sheets on these programs in the interest of accuracy and sufficiency; my less knowledgeable summary might miss some of the important points both good and bad.

Two final points:

a. There is a natural tendency to use the number of "Good Programs" from any particular school as an indicator of how "good" that particular school may be, i.e. if a school has a lot of items in this annex, it is a better, more innovative school than a school which has fewer items. Any such conclusion is totally unjustified. First, my appraisal of each school was necessarily shallow and I am sure that I missed many "Good Programs". Second, in the cases where more than one school is already carrying out a particular program, I normally ascribed that program to the school where I first observed it. Third, some of the schools which, in my opinion, were the very best all-around simply were doing lots of things extremely well, but no specific actions were isolatable.

b. For the purposes of this report, I would like to submit this annex for "information and appropriate actions by the Commandants concerned". One is tempted to recommend that some of the especially appealing programs be required at all schools, but I believe this annex can best serve its purpose if the action to be taken on it is left to the Commandants. I would hope that this compilation of programs proves of sufficient assistance to merit its continuation and up-date, on an informal basis. If it proves useful, such an up-date could be accomplished on an annual basis and handled informally through CONARC and DA.

7

II FACULTY

FACT SHEET

1. SUBJECT: Consulting Faculty Program
2. PURPOSE: To explain the Consulting Faculty Program through which Reserve Component officers during active duty tours assist the CGSC faculty.
3. BACKGROUND:
 - a. Purpose - To make effective use of the vast academic resources which exist in the Reserve Officer Corps by bringing these officers to Fort Leavenworth during their active duty tours.
 - b. History - The program was started in 1968 when 31 officers participated. In 1971 45 officers participated.
4. DISCUSSION: The Consulting Faculty of the USACGSC consists of selected members of the civilian educational community who are employed as faculty members of accredited colleges and universities throughout the United States and who possess appropriate advanced degrees in disciplines related to subject material contained in the curriculum of the Command and General Staff College. Additionally, they are Reserve Component officers of the Army and the other Services and may be placed on specified periods of active duty with the College, or they may participate in the program on a correspondence basis.

Members of the Consulting Faculty have participated in three different aspects of the College's activities:

- a. One group participates in the Strategic Estimates Program. These consultants possess expertise in a specific geographic area in addition to their basic disciplines of economics, history, political science, geography or sociology. They act as monitors, lecturers, and advisors to seminar groups who are preparing strategic estimates of a major country or geographical area.
- b. The second group participates in the College's Master of Military Art and Science Program, reviewing and evaluating the theses prepared by degree candidates and acting as full voting members of committees examining the candidates in the oral defense of their theses. The consultants prepare recommendations on the nature, scope and development of the College's program leading to the award of the Master of Military Art and Science Degree.
- c. Members of the third group are selected because of their knowledge and background in educational methods, techniques, and related matters. These consultants evaluate present programs and suggest improvements and

innovations in computer assisted instruction, instructional television, programmed instruction, research methodology, and in operations research and systems analysis.

The majority of the consultants serve at the College for two weeks; some, due to the nature of their projects, remain either three or four weeks. A valuable by-product of the Consulting Faculty Program is the opportunity for a broad interchange of ideas between CGSC faculty and consultants in a wide variety of disciplines from civilian institutions from all parts of the United States.

Because of its success, the program is now a permanent part of Command and General Staff College activities.

10

**FACT SHEET
ON
MARINE CORPS COMMAND AND STAFF COLLEGE
ADJUNCT FACULTY**

1. The Marine Corps Command and Staff College (MCC&SC) Adjunct Faculty consists of Marine Corps Reserve officers who are educators on college campuses throughout the country. They come to Quantico 4 to 6 times during the Academic Year and for short periods during the summer.

2. The basic concept behind employment of Adjunct Faculty is to bring a touch of the civilian academic world to the military education atmosphere. Military reservists are ideal for this purpose since they have an appreciation and knowledge of both worlds.

3. Employment of Adjunct Faculty is in two areas, i.e., in education administration and in instruction.

a. In education administration they are useful in reviewing and constructing syllabi and improving techniques of instruction such as ITV. They have completed several useful studies.

b. In instructional duties they have a direct relationship with students. They lead book reviews, conduct seminars in their particular fields and assist the students as necessary in writing projects. Additionally, certain of the Adjunct Faculty participate in the family enrichment program by giving an evening lecture to both students and their wives on subjects in their field. Composition of present Adjunct Faculty reflects the following disciplines:

- (1) One in Modern Languages
- (2) Three in Business Administration
- (3) Three in Political Science
- (4) One in Special Education
- (5) One in English Literature
- (6) One in Audio Visual Communications
- (7) One in Psychology
- (8) Two in Education

c. This is the third year of Adjunct Faculty employment in MCC&SC. Their role continues to evolve and expand. This year Adjunct Faculty members have been grouped into four subcommittees to provide continuing study in the areas of: Instructional Methodology, Academic Evaluation, Educational Management and Research Techniques. Although it is too early to provide any tangible results, this subcommittee approach has considerable promise.

12

NAVAL WAR COLLEGE
FACULTY CHAIRS PROGRAM

A program of establishing civilian academic chairs was begun at the Naval War College in 1951 with the objective of complementing the military staff who were often not well trained in research methodology and who lacked close ties with the civilian academic world. It was hoped that in this way distinguished specialists in the more traditional academic disciplines might be attracted to the War College. These specialists would bring with them an intimate expertise as well as the tools of the academic trade: teaching ability, systematized research methodology and experience in curriculum planning. They could then provide new resources to the faculty and staff, as well as to the students. The success of the program led to the concept of military chairs, whereby men with extensive knowledge in particular military areas might be brought to the War College. Although these men might be lacking in formal academic skills, their expertise in operational and planning phases of naval warfare is of vital importance to the curriculum. The military chair holder is also faced with the problem of defining his own boundaries, formulating concepts, and organizing a field of professional military expertise which has not previously been moulded into an academic framework.

There are now eleven civilian chairs covering the areas of maritime strategy, national security and foreign affairs, public diplomacy, military management, international relations, gaming and research technique, maritime history, international law, economics, comparative cultures, and physical science. There are ten military chairs in the areas of air strike warfare, surface strike warfare, logistics, submarine warfare, marine amphibious operations, electronic warfare, naval strategy, intelligence, anti-submarine warfare, and naval amphibious warfare. Chairholders conduct Winter Term Research Seminars, Spring Electives and lecture in the Fundamentals of Strategy Study and in other areas of the core curriculum.

They provide advice and assistance to the president, faculty, staff and students in their particular areas of expertise, assist in curriculum planning, and act as consultants in their field to the Professor of Libraries and to the Center for Continuing Education. Chairholders may write for publication, pursue studies and research, lecture to outside groups, and attend seminars and professional organization meetings. A military chairholder also maintains liaison with his sponsor in Washington and with other offices and activities engaged in research, development and operations in his field.

While there are a few exceptions, chairs are generally held for a period of one year. This is most convenient for civilian professors who must take a leave of absence from their institutions and avoids the problems of tenure and possible stagnation of the faculty. The most notable exception to the one year tour is the Special Academic Advisor/Mahan Chair of Maritime Strategy/Supervisory Professor who is tenured. He not only teaches, but he also provides a vital element of advice and continuity in the academic side of the house and is the immediate supervisor of the civilian chairholders. Military chairholders usually receive a two year tour at the Naval War College, but this is subject to possible modification at the request of the President of the Naval War College.

FACT SHEET

1. SUBJECT: The Faculty Development Program
2. SOURCE: U. S. Army Ordnance Center and School
3. PURPOSE: To provide information concerning the upgrading of staff and faculty skills through pertinent training within and without USAOC&S.
4. BACKGROUND:

a. The U. S. Army Ordnance Center and School implemented the Faculty Development Program during August 1964. This program is referenced to 27 subject matter areas required to support both the officer and enlisted curricula of the school. Typical of these subject matter areas are Machinist, Computer, Maintenance Management, Aircraft Armament and National Support Services. A separate published program supports each of these discrete subject matter areas. A copy of the program for Aircraft Armament Instructor is attached (incl 1).*

b. This program is designed to develop instructor personnel through the use of a formalized plan providing for progression through identified levels of professional achievement. These levels are associate instructor, instructor, full instructor, and master instructor. Each of the implementing subject matter programs lists in detail the duties, tasks, specific developmental activities and standards that are required to meet the above mentioned instructor levels. The specific developmental activities encompass in-service courses, correspondence courses, professional reading, minimal instructional capability in assigned courses, technical writing, liaison with prime Army sources of knowledge, and the development of sophisticated training devices. The attainment of each instructor level is accomplished upon the supervisor's certification in the individual's program that all requirements have been met. Completion is recognized by an appropriate certificate of qualification which is awarded by varied levels in the school organization as dictated by the level of accomplishment, i.e., the associate instructor certificate is awarded by the training division chief, and the master instructor certificate is awarded by the Commandant (incl 2).*

*Inclosures removed for sake of brevity

5. OBJECTIVES: There are two major objectives of this program:

a. To provide opportunities for each member of the staff and faculty to increase his competency in his chosen technical field. In achieving this objective, the provision of opportunities for the increase of competency within a chosen technical field, each member of the staff and faculty is allowed to proctor technical portions of resident courses. This is followed by directed readings in periodicals and other technical literature and the successful completion of selected subcourses developed by our Department of Nonresident Instruction and by other service schools. Upon evidence of growth and maturation in the technical field and in military training, personnel are selected to act as technical advisors for training films and television productions and for attendance at new equipment training (NET) courses. In some cases, the faculty members are selected to attend formal training at other service schools or at civilian training institutions.

b. To provide opportunities for each person to increase his knowledge of, and his ability to operate within the broad boundaries of, military training. This objective of the Faculty Development Program is met through the conduct of seven in-service training courses. These in-service training courses are listed below in order of progression. The courses were developed by the Instructional Methods Division based upon a task analysis to determine those aspects of training most crucial to the job, both within the school and in the field.

**Instructor Training
Reading Improvement
Test Construction
Programed Text
Instructional Materials Development
Instructor Supervisors
Fundamentals of Counseling**

Completion of the Instructor Training course is the first hurdle for the instructor in the in-service training program. The course is aimed primarily at improving communicative skills. In order to achieve the status of full instructor, the student is required to complete the Reading Improvement and Test Construction courses. The master instructor

16

must have completed all the above in addition to the Programed Text course. In addition to completing the required courses, instructors attend enabling courses offered periodically for additional self improvement. These are the Instructional Materials Development, Instructor Supervisors and Fundamentals of Counseling courses. Only one of these courses, the Instructor Training Course, is mandatory for all teaching personnel. Waivers for this course are granted only to those personnel who have successfully completed an Instructor Training Course at another service school, and then only when the instructor demonstrates an ability to conduct instruction at a level above our minimum standards.

6. PARTICIPATION:

- a. All teaching personnel of the U. S. Army Ordnance Center and School are enrolled in the Faculty Development Program. With the exception of the Instructor Training Course, progression within this program is largely voluntary on the part of the instructors. Response is very gratifying, however, particularly on the part of career personnel such as officers, civilians, and the upper grades of enlisted personnel.
- b. Since its inception, the Faculty Development Program has obtained the following levels of professional achievement in the development of our staff and faculty personnel:

<u>Levels of Professional Achievement</u>	<u>Quantity</u>
Master Instructor	58
Full Instructor	761
Instructor	1855
Associate Instructor	<u>4346</u>
TOTAL PARTICIPATION	7020

7. NOTE: To obtain further, more specific information, contact the Office of the Director of Instruction, APG, MD, telephone extension 3058/3469.

17

EVALUATION DIVISION
DIRECTOR OF INSTRUCTION
US ARMY ARMOR SCHOOL

PURPOSE

To provide information on the Armor Officer Advanced Course Faculty Advisor Program at the US Army Armor School.

FACTS

1. Objectives of the program:

- a. To foster mutual understanding of Armor School policies and provide a means for the improvement of the various courses through student-faculty effort.
- b. To provide academic advise and counseling for students.
- c. To evaluate students in areas of special aptitudes and qualifications not determined in the academic program.
- d. To provide students with guidance in the selection of electives, special subjects, and advanced studies.

2. The Faculty Advisor program is administered in the following manner:

- a. This faculty advisor program is the most extensive of any of the programs. Each advisor is assigned from two to five advisees.
- b. The prerequisites to be an advisor in this program are:
 - (1) Graduate of his branch Advance or Associate Career Course.
 - (2) Assigned to the Staff and Faculty.
 - (3) Projected to remain assigned to the School throughout the term of the course.
 - (4) Must be a field grade or promotable captain.
 - (5) Should be a combat arms officer.

(6) In addition the advisor must be certified by his director.*

c. The faculty advisors duties include:

(1) Attends the AOAC welcome and orientation on the first day of the course.

(2) Becomes well acquainted, academically and socially, with each student in his group.

(3) Provides guidance and counsel on matters that concern academic difficulties, study habits, etc.

(4) Interviews failing and marginal students and submits reports of interview.

(5) Completes a worksheet (Inclosure 1)* for use in preparing each student's academic report DA Form 1059.

(6) At Inclosure 2* is the Guidelines provided Faculty Advisors.

3. In the event a Faculty Advisor is relieved or reassigned, he will complete a worksheet (Inclosure 1), brief and pass on to his successor all the necessary records and information on each individual advisee.

* There are two Combat Arms Officers assigned to the School who have not been certified as Faculty Advisor. One officer was seriously wounded in Vietnam and his retention is doubtful. The other officer is an Infantry Major and we are taking steps to reassign him.

*Inclosures removed for sake of brevity

19
AOB INSTRUCTION DIVISION
DIRECTOR OF INSTRUCTION
US ARMY ARMOR SCHOOL

PURPOSE

To provide information on the selection and use of high caliber tactical officers assigned to the Armor Officer Basic (AOB) Course classes.

FACTS

1. It was recognized that the lieutenants assigned to AOB classes could not adequately administer the class. Many of the lieutenants had just graduated or were waiting to attend the same course. In most cases they were all to inexperienced to be much more than a messenger for the School Brigade Company Commander. Although the company commander was an experienced first lieutenant or captain his administration of a number of classes was such that he could pay little continued attention to a particular class.
2. In the spring of 1970 this was remedied by assigning an experienced career officer to each class and retaining the lieutenant as an assistant. This provided each class a senior and junior tactical officer whose only interest was one class. This simplified administrative problems associated with new officers, smoothed course scheduling errors and a myriad of other problems which plagued the old system.
3. Normally the senior tactical officer was an experienced captain who had just graduated or was waiting to attend the career course. In the former case many were assigned to the Armor School as instructors. The experience with an AOB class broadened the officers experience in student and School problems and provided him with a well rounded understanding of the Armor School and its functioning. Experience has shown that these officers made better instructors as a result of the exposure.
4. This program has been so successful that the concept was expanded to increase the number of experienced officers with each class. In fact, up to one per student platoon of about 25 officers. An accompanying increase in duties, particularly in instructing and evaluating the student as well as evaluation of the instruction presented was the responsibility of the TAC officer. The officers retain all the functions outlined originally by their commander at the outset of the program, as shown in the policy letter at Inclosure 1.*

*Inclosure removed for sake of brevity

20

FACT SHEET

SUBJECT: Use of Enlisted Instructors for Officer Classes

PURPOSE: Indicate areas wherein USAIMA currently is using enlisted instructors in teaching of officers.

FACTS: 1. Within the Civil Affairs School and the Military Advisor School, there are no enlisted instructors currently teaching officer classes.

2. Within the Psychological Operations School there are currently three enlisted men (one of whom is a sergeant major) teaching officer classes.

a. The sergeant major teaches the different types of media and face-to-face communication.

b. One enlisted instructor (a SFC) teaches printing. The sergeant has been in printing for the past 15 years.

c. One enlisted instructor (a SGT) teaches subjects within the social science field. He is qualified by virtue of his academic background.

d. In addition to the above three, two other enlisted instructors have taught research methods and social sciences in the past. These two instructors have departed the command.

e. Overall effectiveness and efficiency are very high, as attested to by student officer comments over the past two year period.

3. Within the Special Forces School, there is only one officer course: the Special Forces Officer Course. Approximately 50% of this course is taught by enlisted instructors. The remaining 50% of the course uses enlisted instructors for assistants to the principal officer instructor. Officer instructors teach concepts, theories, and staff type subjects. Enlisted instructors teach air operations, weapons, communications, medical, intelligence, and other technique-type subjects.

DISCUSSION: 1. Due to shortages of officers, and the great amount of technique-type subjects, enlisted instructors have been used within USAIMA for the past 10 years.

21
FACT SHEET (continued)

SUBJECT: Use of Enlisted Instructors for Officer Classes

2. Enlisted instructors establish creditability with officer classes by virtue of their military background, their academic background, or both.

3. Student officer comments over the past years indicate the worth of enlisted instructors in USAIMA.

CONCLUSION: USAIMA has found that enlisted men with appropriate military and academic backgrounds make excellent instructors. Qualified enlisted instructors are acceptable to officer classes, provided that the subjects taught lay within the enlisted man's area of expertise. Enlisted instructors will be used in the future within USAIMA, to teach tactics, and technique-type subjects. Officers will continue to teach staff, doctrinal, and theory type subjects.

22

FACT SHEET

1. SUBJECT: Training of USAOC&S Civilian Work Force
2. SOURCE: U. S. Army Ordnance Center and School
3. PURPOSE: To provide information concerning the upgrading of civilian skills through pertinent training within and without USAOC&S.
4. BACKGROUND:
 - a. All training for USAOC&S military and civilian staff and faculty personnel is coordinated by the USAOC&S Training Committee. The training committee is a management group that assists in planning, coordinating, and evaluating the training and development program as it pertains to USAOC&S staff and faculty as differentiated from USAOC&S mission assigned career and MOS training.
 - b. Functions of the Training Committee:
 - (1) Recommend training policies peculiar to the needs of the USAOC&S Staff and Faculty.
 - (2) Review those training needs reported by supervisors; consolidate command or activity-wide needs; and recommend a specific training program for the fiscal year as well as a general plan for the succeeding five-year period. All plans will include the needs of career, work-study, apprentice, and trades personnel; provide for the continuing development of executives, middle managers, and supervisors; and incorporate training for such new skills as are required by technical change.
 - (3) Determine the priority of training needs in accordance with budget allowances and mission requirements.
 - (4) Nominate and/or review nominations for competitive development opportunities and for long-term training (in excess of 120 days).
 - (5) Assure that equal opportunity for training is extended to all employees who meet established standards regardless of race, creed, national origin, sex, or pay category.
 - (6) Periodically review reports of training completed to assure compatibility with mission requirements.
 - (7) Encourage managers and supervisors to provide the climate for and the opportunity to apply the learning.

23
(8) Assist in the evaluation of training accomplishments as required by the Government Employee's Training Act, Department of Defense, and the Army.

c. The chairman of the USAOC&S Training Committee reports directly to the Commandant of the U. S. Army Ordnance Center and School.

5. DISCUSSION: In general, there are two major categories of training provided to USAOC&S civilians under the auspices of the USAOC&S Training Committee.

a. The first of the two categories is a fiscal year program designed around the following actions:

(1) Training needs for all civilian personnel are ascertained approximately 6 months prior to the beginning of a fiscal year.

(2) For personnel entered in career programs, the training needs are closely co-ordinated with the training plan devised by the supervisor and the employee and entered on the previous year's Employee Career Appraisal (DD Form 1559). For personnel not entered in career programs, training needs are devised by the supervisor and employee in conference.

(3) Based on the funds allocated for civilian training for the forthcoming fiscal year, the USAOC&S Training Committee establishes the priority of training needs in accordance with mission requirements, union agreements, and equal opportunity employment considerations.

(4) This priority of training needs is recommended to the Commandant, and upon approval, becomes the established training program for civilians for the ensuing fiscal year.

(5) The sequence of events in devising the program is so ordered that all supervisors and employees to be trained know well before the first of the fiscal year, which training requested has been approved and has been funded and which has not.

(6) At least one review of the program is made at approximately mid-year to insure that the program has remained current and has taken into account changes required by the addition of new personnel to the staff or loss of personnel from the staff.

b. The second major category of training is one which recognizes a special need for a group of civilian employees, as differentiated from training allocated to individual employees. This type training includes the variety of long range civilian training provided

for under CPR 400. Procedurely, training of this type is arranged for civilian personnel as follows:

- (1) The need for group training or group education is ascertained by the USAOC&S Training Committee. As an example, three years ago the Commanding General requested that the USAOC&S Training Committee provide a program for a group of education specialists assigned to the USAOC&S which would upgrade their skills in the area of adult education and as a derivative result would provide Master of Arts Degrees in education to each participant.
- (2) A subcommittee of the USAOC&S Training Committee negotiated a contract with a local university to fulfill the Commanding General's request. In this instance, the contract was negotiated with the George Washington University, Washington, D. C. However, from time to time, training has been provided to other groups in the same manner through other universities.
- (3) During the period of training, the USAOC&S Training Committee, or its designated representative, serves as an agent between USAOC&S and the organization conducting the training. In this capacity, the committee adjudicates the differences between USAOC&S and the contractor which are outside the specification requirements of contract negotiations and fulfillments. In addition, the committee serves as a counselor to the students participating, as an advisor to the Commandant on all matters concerning the special program, and as liaison between the Commander and the organization conducting the training.
- (4) Under auspices of the George Washington University program, nineteen civilians successfully completed 33 hours each of Adult Education oriented courses. The contract provided that a portion of the classroom time involved (four hours per week; 8 weeks per course) be on Government time. Successful completion has provided a twofold result, i.e. (1) the skills of the employees have been sharpened, (2) the addition of the graduate degrees has enhanced the overall academic reputation of USAOC&S.

6. NOTE: To obtain further, more specific information, contact the Office of the Director of Instruction, APG, MD, telephone extension 3008/2531.

FACT SHEET

ATSSS-I-OP

SUBJECT: Educational Program for Civilian Instructors

PURPOSE:

To outline the Education Program for Civilian Instructors of the US Army Southeastern Signal School.

FACTS:

1. In addition to the normal service wide training and development program, the Southeastern Signal School provides the following job related training:

a. On duty training at no expense to the instructor:

Basic English Refresher. This course provides review work in basic English grammar and opportunities for development of better written English.

Effective Writing. This course is designed to provide assistance to employees in the correct forms of writing and the proper use of words.

The Army Maintenance Management Systems (TAMMS). Both a 35 hour and 8 hour course are offered. This workshop provides Signal School personnel with a working knowledge of Maintenance Management techniques.

Programmed Instruction. The basic characteristics of the process of Programmed Instruction are taught as well as the principles of learning inherent in its design and application.

Refresher Mathematics. This course is designed for instructors who need to increase their proficiency in mathematics skills needed for specific jobs.

ATSSS-I-OP

SUBJECT: Educational Program for Civilian Instructors

36

Systems Engineering of Training (Course Design) Workshop.

Provides instruction in the systems approach concept with emphasis on the major steps involved in the design of courses.

Training Supervisors Course. Provides military and civilian supervisors with a working knowledge of effective supervisory techniques and related control documents.

Vocabulary Building (Etymology). Designed to explore the science of word derivation through common prefixes, roots and suffixes.

b. Off duty training:

Undergraduate College Courses. Augusta College has a Resident Center at Fort Gordon and offers twelve to fifteen undergraduate courses each quarter leading to the award of a Bachelors Degree primarily in Education or Business Administration. These classes are conducted after duty hours and the Government reimburses civilian instructors for cost of some mission oriented courses. The instructors may also take evening courses on the college campus in Augusta.

Graduate Courses. The Board of Regents of the University System of Georgia has approved a graduate program in Education and Business for Fort Gordon. This program is conducted by Georgia Southern College, Statesboro, Georgia. Classes are held after duty hours in the Signal School buildings and are open to residents of the civilian community as well as Fort Gordon personnel. Civilian instructors are reimbursed for the cost of mission oriented courses.

Technical Courses. The Georgia State Area Technical School in Augusta provides technical training on any subject for which a need exists by the employees of any local industry. Consequently, the USASESS, in conjunction with the school staff, determined that a series of electronic courses were needed to enable instructors without electronic maintenance backgrounds or with limited backgrounds, to become qualified in these areas. This training will provide the USASESS with a more flexible and responsive workforce. It will also open up promotional opportunities for many instructors now assigned to Operator type courses. Two electronics and one transistor course were established which will be conducted at the Augusta Area Technical School

ATSSS-I-OP

SUBJECT: Educational Program for Civilian Instructors

at no cost to the individual or to the Government. The specific courses are as follows:

Electronics I (Basic Electronics). This course is designed to provide USASESS instructors with a good background knowledge of alternating current and electron tubes.

Electronics II (Semi-Conductors and Logic). This is to provide instructors with a better knowledge of digital computer operation and logic circuits.

Transistor Theory and Practice. Provides instructors with advanced knowledge of transistor theory which is directly related to their present or anticipated job assignment.

c. New Equipment Training Program: Selected instructors receive instruction by manufacturers of new equipment which is to become part of a USASESS training program. Once trained, these personnel prepare and conduct a similar course at the school for other instructors who have or will have a need for this knowledge.

28

PROGRAM FOR DEVELOPMENT OF FACULTY
EXPERTISE AT ARMY WAR COLLEGE

1. United States Army War College designates each faculty member as a Director of a Field of Study, e.g., Director of Soviet and East European Communist Studies. The officer appointed as Study Director has the responsibility of maintaining continuing expertise in his field through review of literature, attendance at annual and regional meetings of professional associations, and trips to areas of the world, institutions, or organizations pertinent to his area of expertise.
2. The Study Director is assigned definitive curricula responsibilities, including preparation of appropriate portions of courses, conduct of seminars and lectures, and authorship to include study guides, bibliographies, and professional writing. These curriculum, as well as reading and liaison responsibilities, are spelled out in a "Study Director Analysis", an illustration of which is attached.
3. Funding support for TDY, travel, schooling, publications, etc is provided by USAWC.

1 Incl
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21

DEPARTMENT OF NATIONAL AND INTERNATIONAL
SECURITY STUDIES

STUDY DIRECTOR ANALYSIS

18 August 1971

1. **TITLE:** Director of Soviet and East European Communist Studies.
2. **SCOPE:** The Director develops and maintains a comprehensive knowledge of the USSR, the Communist nations of Eastern Europe, and the Mongolian People's Republic. He assesses relationships between the USSR and the nations of the world, with emphasis on those with the United States, the United Nations, and the nonaligned and developing nations. He maintains a current knowledge of the armed forces and military capabilities of the USSR and of its Warsaw Pact allies. He keeps well informed of the similarities and differences in the objectives and policies of the USSR and its allies. He maintains a comprehensive knowledge of United States' policy toward these nations.
3. **SUBJECT EXPERTISE:**
 - a. **Required:**
 - (1) Political/Military Elements of Power of the USSR.
 - (2) Communist Ideology.
 - (3) Military Capabilities of the USSR.
 - (4) Academic discipline - political science.
 - b. **Desired:**
 - (1) Economic, Social, Scientific/Technological Elements of Power of USSR.
 - (2) Foreign Policy of the USSR.
 - (3) Geographic areas - USSR and CSEE.
4. **PRE-ASSIGNMENT QUALIFICATIONS:**
 - a. **Grade:** Colonel.
 - b. **Education:**
 - (1) Masters Degree in International Affairs/Soviet Studies, or its equivalent.

(2) Graduate of a Senior Service College or equivalent.

(3) Graduate of Russian FAS program.

c. Previous Assignments:

(1) Command--as appropriate.

(2) Staff--Intelligence background on Joint or Army Staff specializing in USSR.

(3) Special (desirable).

(a) Attache duty in USSR or East Europe or,

(b) Liaison Mission in East Germany or,

(c) MI Group in Germany.

d. Special Schooling:

(1) Russian language.

(2) Defense Intelligence School.

5. POST-ASSIGNMENT ACTIVITIES:

a. Education:

(1) Senior Seminar in Foreign Policy.

(2) Summer/semester courses at:

(a) Russian Institute, Columbia University.

(b) Russian Research Center, Harvard University.

(c) Sino-Soviet Institute, George Washington University.

(3) Foreign Service Institute.

b. Temporary Duty: OACSI, DIA, CIA, Department of State, Sino-Soviet Institute, George Washington University (periodic seminars and symposia on Soviet affairs), ISA, OSD.

c. Liaison:

(1) OACSI.

(2) DIA.

31
(3) OJCS.

(4) Department of State, particularly INR.

(5) CIA.

(6) RAC.

NOTE: Special security clearance essential for meaningful liaison with these agencies.

d. Societies:

(1) American Academy of Political and Social Science.

(2) Foreign Policy Association.

e. Readings.

(1) Russian language: Pravda, Red Star, Military Herald, Military-Historical Journal, Military Thought.

(2) Foreign Affairs, East Europe, Current History, Current Intelligence publications.

f. Curriculum Contributions: Prepares Soviet portions of Course 2 and SRCOC. Reviews and suggests selected readings and other course materials for DNRI sub-courses dealing with USSR and CSEE (A-5). Serves as consultant on Soviet matters in the preparation of courses by other departments (SRP, MSS). Serves as College representative to various study groups and conferences on Soviet affairs (OSD, IDA, etc.). Acts as Research Adviser to SRP and other USAWC activities in areas of expertise.

g. Lectures: Presents lecture on the "Military Threat of the USSR" in Course 2. Presents lecture on the strategic appraisal of Soviet power to SRCOC. Conducts panels and ALCs related to Soviet portion of Course 2. Conducts the Soviet portion of the lecture on the Sino Soviet Dispute during Course 2. Contributes to CDCSSI Studies in area of expertise. Presents lecture on an appraisal of Soviet power during the resident phase of the nonresident course.

h. Authorship:

(1) Soviet portions of Course 2 Directive.

(2) Highlights for scheduled committee meetings on USSR foreign objectives.

32

(3) Study Guides on the national strategy of the Soviet Union over the next decade and on the implications of the Soviet Union's national strategy for US security interests.

(4) Professional writing for publication in field of expertise is encouraged. Prepares reviews of new books on the USSR and East Europe for Military Review, Parameters, etc.

i. Documents:

(1) Appropriate National Intelligence Estimates and Defense Intelligence Estimates.

(2) DIA Fact Book: Communist World Forces.

(3) JIEP, JLRSS, and appropriate sections of JSOP.

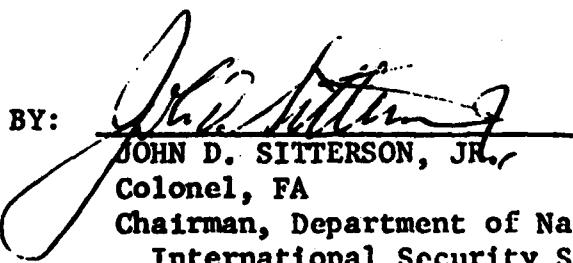
(4) DIPP.

(5) Appropriate portions of the NIS.

PREPARED BY:


CHARLES M. STOCKELL
Colonel, MI
Director, Soviet Studies

REVIEWED BY:


JOHN D. SITTERSON, JR.
Colonel, FA
Chairman, Department of National &
International Security Studies

33

EXTENDED ASSIGNMENT FOR AIR UNIVERSITY FACULTY MEMBERS

Air University has recognized the need to have a limited number of military faculty members with outstanding competence as teachers in its schools, and who desire such an assignment, to serve on extended tours of faculty duty. The number of such officers has been limited to ten percent; however, during the three years this policy has been in effect, only a small number have been appointed.

We anticipate that several officers who are now in Ph. D. programs for Air University positions will qualify for and receive such extended appointments. Details of this program are outlined in AU Regulation 36-2 (attached).

14 July 1971

Officer Personnel

EXTENDED APPOINTMENT OF FACULTY MEMBERS

This regulation defines extended appointment of faculty members and outlines the policy and procedures for implementing and administering the program. It applies to Air Force Institute of Technology (AFIT), Air War College (AWC), Air Command and Staff College (ACSC), Academic Instructor and Allied Officer School (AIAOS), and AU Institute for Professional Development (AUIPD).

1. Term Explained: Extended appointments. Appointments of certain military faculty members to faculty positions in Air University which provide for tours of duty longer than authorized by the normal assignment policy.

attaining and maintaining a nucleus of appropriately educated personnel to increase the competence and prestige of the faculty.

c. Help insure the continuation of accreditation of the AFIT course materials.

4. Procedures:

a. Selection and appointment will be based on the recommendation of the commandant of the college/school, the Commander, Air University, and subsequent approval by Headquarters USAF.

b. Faculty members who are approved for extended appointment will compete with their contemporaries in the line of the Air Force for temporary and permanent promotion.

3. Objectives of the Extended Appointment Program Are to:

a. Insure continuity of the academic programs and educational objectives of Air University.

b. Provide the stimulus for

Supersedes AUR 36-2, 21 July 1970. (For summary of revised, deleted, or added material, see signature page.)

OPR: DPXP

DISTRIBUTION: B

c. The aeronautical rating of an officer selected for an extended appointment will not be affected.

d. The commandant of the college/school may initiate requests for extended appointment at any time. Requests will be forwarded to the Deputy Chief of Staff, Personnel (DP),

e. DP will prepare the letter of nomination for the AU Commander's approval and forwarding to USAF.

f. Officers recommended for appointment will meet the following criteria:

(1) Be a regular officer.

(2) Have an exceptional military record, based on the last five officer effectiveness reports and meeting the standard within the excellent-to-superior classification.

(3) Have an earned doctorate degree. (Waiver may be considered for the AWC faculty if the individual possesses exceptional academic or military qualifications.)

(4) Demonstrated competence as a teacher, lecturer, educational administrator, or scholar.

(5) Have served a minimum of one year as a faculty member of the college/school.

(6) Be a volunteer for the appointment.

(7) Be serving in the grade of

colonel, or below.

(8) Have served a minimum of ten years of active federal commissioned service.

g. Officers will be eligible for a one to two year selected assignment every five to seven years in order to stay current in their fields, both military and academic. These assignments will be agreed upon between Air University and the Colonels Branch, HQ USAF, or the Assistant Deputy Chief of Staff, Personnel, for Military Personnel (USAFMPC), HQ USAF. These assignments could include faculty exchange tours, research laboratory tours, operational tours, or attendance at a senior service school.

h. The tour of duty for extended appointment of faculty members will be as follows:

(1) Initial appointment will be for four years.

(2) Renewal of appointment will be requested in four year increments up to the point of mandatory retirement or 30 years total active federal commissioned service, whichever occurs sooner.

(3) Upon completion of any appointment period, the officer may request return to a Line of the Air Force assignment.

i. It is expected that an officer selected for this extended duty would serve in this assignment until retirement. However, termination

14 July 1971

36
AUR 36-2

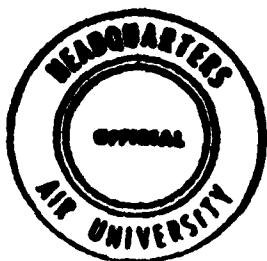
of the permanent appointment could also occur for any of the following reasons:

(1) Promotion to the grade of colonel in the case of those appointed to the assignment while serving in a grade of lieutenant colonel, or below, and promotion to general in the case of those appointed to the assignment

while serving in the grade of colonel.

(2) Request for termination by the appointee.

(3) Termination action by the commandant of the college/school as approved by the Air University Commander and HQ USAF.



J. D. FUHRMANN, Lt Colonel, USAF
Director of Administration

ALVAN C. GILLEM II
Lieutenant General, USAF
Commander

Summary of Revised, Deleted, or Added Material

This revision explains "extended appointments" and adds AUYPD with a limit of three spaces for extended appointment.

AIR UNIVERSITY ACADEMIC INSTRUCTOR COURSE

The Academic Instructor Course (AIC) has been used since the beginning of Air University to train its instructors. This has included military teachers in Air University resident schools as well as instructors for the Senior and Junior Air Force ROTC programs. In addition, other commands in the Air Force send many of their officer, enlisted, and civilian instructors to this course prior to having them assume teaching duties.

This course, with its learning by doing approach, has been very successful in training Air Force teachers. Civilian colleges have recognized the worth of this program and on several occasions have requested the privilege of sending certain of their faculty to complete the course. A limited number of officers from other services have also attended.

The first week of AIC is loaded with instructional theory. The remainder of the course involves students in applicatory teaching exercises in small groups. Details of the course follow.

PART I. COURSE DESCRIPTION

1. GENERAL. The Academic Instructor Course is conducted six times per year at Maxwell Air Force Base, Alabama. It is of five weeks duration for four officer and civilian classes (A, C, D and E). Two additional days are added to the course for two airman and civilian classes (B and F).* The quota is 130 students per class except for Class D, which is 180.

2. MISSION. The mission of the course is to increase the effectiveness of selected instructor personnel of the Air Force.

3. OBJECTIVES. The course is designed to accomplish its mission by achieving six primary objectives. The objectives are to cause the student to:

- a. Cultivate attitudes appropriate for Air Force instructors.
- b. Increase his understanding of basic principles of learning.
- c. Increase his ability to plan instruction.
- d. Improve his ability to use sound teaching methods.
- e. Increase his ability to communicate effectively.
- f. Improve his ability to evaluate achievement of learning objectives.

4. PHILOSOPHY. The curriculum is responsive to the Air Force requirements upon which the course mission and objectives are established. It reflects the concept that achievement of desired learning objectives can be attained best when the student is ready to learn and is then guided through a pyschologically correct learning experience. The foundation of the course is a discussion of learning theories and the learning process; all who aspire to guide the learning of others must first attain some understanding of what learning is and what appears to aid or hinder learning.

Once a student has knowledge of the learning process he needs to become proficient in furthering the learning of others in an environment conducive to learning. In short, he must gain proficiency, through practice, in assessing the needs of his students, audibly and visually communicating his ideas, planning and presenting optimal learning experiences, and evaluating his and his students' success.

Effective teaching is insured not by a mechanical application of teaching methodology but by a combination of teaching methodology, considerate interest in the student for whom the educational process exists, and a deeply felt contagious enthusiasm for the importance of the instructor to the defense of the United States and the free world.

Basic to the course philosophy is the concept that students will tend to teach as they have been taught rather than as they have been taught to teach.

*These additional sixteen hours of the curriculum include six hours of short practice exercises in the Guided Discussion and Lecture methods of instruction, and four hours in Prepared Speeches. The other six are scheduled study hours.

5. PROCEDURES FOR STUDENT LEARNING.

a. The curriculum is organized to provide for maximum student participation in the learning process. This participation is closely supervised by a highly qualified faculty and follows a 7-step procedure.

(1) Learning begins when the student reads an assignment covering a specific learning area.

(2) The student gains information about the learning area from listening to a faculty presentation which normally includes a demonstration to add depth to the student's understanding.

(3) The student meets in a small group with an advisor to view an instructor-led TV presentation. This is followed by a discussion which produces a deeper understanding of the concepts involved.

(4) The student is given time to reinforce his understanding through additional study and to prepare for a practice teaching lesson, a speaking exercise, or another learning activity.

(5) The seminar advisor counsels the student on the activity for which he has prepared. Through this guidance the student's understandings are further increased.

(6) The student demonstrates his ability to perform the activity before a small group of students and a faculty member. The faculty member's critique of the performance assists the student toward further improvement.

(7) The student is again counseled by a seminar advisor to evaluate the completed activity and to relate that which has been done to that which is to be done.

b. This 7-step procedure facilitates, in an orderly way, the student-centered learning experiences under the guidance of a skilled instructor.

6. ORGANIZATION FOR STUDENT LEARNING. The Academic Instructor Course is built around student-centered learning activities. The students are assigned to a basic advisor and seminar group for the entire course. They are assigned to other groups for the purpose of presenting practice teaching lessons and laboratory activities. The organization for student learning falls into three categories:

a. Work in Large Groups: (20% of scheduled time) As a class group, students see and hear members of the faculty define, explain, and demonstrate plans, methods, and techniques of learning.

b. Work in Small Groups: (60% of scheduled time) In groups of eight or nine, students give oral presentations, conduct practice teaching lessons, and participate in seminar discussions and projects under the guidance and counseling of instructors. In laboratories attention is concentrated upon individual needs.

c. Individual Work: (20% of scheduled time) The student prepares for participation in group activities. He completes reading assignments, does

40

research, organizes and prepares for a variety of activities related to both large and small group work. He is frequently counseled by his faculty advisor.

7. ASSESSMENT OF STUDENT LEARNING.

a. To provide a systematic means of determining individual strengths and weaknesses, so that learning activities might be most effectively student-centered, a comprehensive evaluation program is followed throughout the course. This program involves four interrelated approaches.

(1) Educational Surveys: On the second day of the course, students answer a number of questions covering a comprehensive sample of the entire course. Survey results provide each student with an awareness of his strengths and weaknesses. The results also assist the faculty to adapt instruction to student needs and to counsel students throughout the course. Subsequent surveys in the form of short quizzes provide opportunities to review material and to reteach where necessary.

(2) Practice Teaching: The most important indication of student progress is performance in practice teaching. A faculty member analyzes the performance of each student as he presents his lesson. The faculty member then critiques the lesson, both orally and in written form. The oral critique provides the student with immediate reinforcement of his better teaching techniques and with possible corrective actions for those areas in which he was weak. The written critique serves as a synopsis of strengths and suggestions for improvement for later use by the student and his faculty advisor. The critiques are supplemented by a numerical rating of lesson quality in terms of several critical traits of effective teaching. The written critique and performance rating provide definitive data for follow-up counseling.

(3) Seminar Activities: The student's attitude, preparation, and achievement are evaluated by his seminar advisor during speaking exercises and advisory, discussion, and project periods.

(4) Course Examination: An objective-type examination helps to determine how well the student has learned. A review of the examination is then held in each seminar to clarify and to reteach any areas of the course not fully understood by students.

b. Scores on the practice teaching exercises, seminar activities, and course examination are combined to assist in identifying the student's effectiveness as an instructor. Although minimum standards are defined, recommendations regarding graduation are made by the Faculty Board on an individual basis.

8. PROCEDURES FOR IMPROVING COURSE EFFECTIVENESS. Two approaches are followed to improve the curriculum.

a. Student Reactions:

(1) Written critiques of curriculum hours are obtained from the student body to assist faculty members in improving their future lessons.

(2) Evaluation techniques such as unit surveys and the course examination provide information and insights which are used to strengthen the course.

(3) A student committee serves as the focal point throughout the course for expressing problems and recommendations.

(4) An end-of-course critique questionnaire permits each student to react to all facets of the course. It provides a valuable source of ideas for improving the course curriculum.

(5) The faculty seeks ways to improve the course from former students through periodic field visits.

b. Faculty updating and enrichment:

(1) Frequent visits to other schools and commands provide understanding of current Air Force instructional problems and requirements.

(2) The faculty visits military and civilian activities to keep abreast of educational problems, research, and innovations.

(3) An on-going in-service training and faculty enrichment program increases professional competence and encourages faculty initiative.

(4) Visiting authorities are invited to discuss timely educational topics with the faculty.

(5) Faculty members participate in academic conventions and professional conferences related to their areas of interest.

(6) Research, experimentation, and publication are encouraged. Professional literature is screened to bring topics and findings of current research to the attention of the faculty.

9. RESEARCH AND INNOVATION. Adhering to the belief that course vitality demands change and innovation, on-going research is an integral part of the faculty's responsibility. Explorations dealing with a wide range of areas, from teaching methodology and educational technology through educational evaluation, are made to develop ideas, formats and techniques. Such research and resulting innovations are designed with the ultimate goals of increasing student learning and enhancing the achievement of course objectives.

10. TELEVISED INSTRUCTION.

a. Televised instruction is an integral part of the Academic Instructor Course curriculum. AIAOS has use of the Air University Television Studios and all Academic Instructor Course classrooms are equipped with television monitors. Selected curriculum hours are presented through the medium of television, which allows students to work in small groups under the close supervision of their seminar advisors. As a part of the regular curriculum, all students receive instruction in the role of television in education. An observation room adjacent to the studio provides students an opportunity to observe the production of educational telecasts. AIAOS also uses portable video-tape recorders to record prepared speeches and practice teaching lessons in the seminar rooms. These recordings are played back for the student and his seminar advisor to evaluate and critique. This equipment is also used to record student activities in selected laboratories, such as Counseling, Critiquing of Speaking and Group Behavior.

13

III STUDENTS

44

FACT SHEET

SUBJECT: Junior Officer Retention Program

PURPOSE: To explain the features of the Junior Officer Retention (JOR) Program presently in effect at USAAGS.

FACTS: a. The JOR Program at USAAGS resulted in an increase in retention of student 2LTs (those requesting Voluntary Indefinite status) from approximately 10% to more than 40% in less than 12 months.

b. The most effective elements of the program include:

(1) A comprehensive welcome packet mailed to the student before he reports for AD.

(2) Assignment of an AGC Captain, preferably RVN returnee, as the Military Leadership Instructor (MLI) to each basic class. The MLI meets the class upon reporting and remains the principal staff and faculty representative to the class throughout the course. The human, informal approach is stressed in his dealings with the class to develop a strong rapport with them.

(3) The Commandant, USAAGS, personally welcomes the class at the opening ceremony, and sponsors a coffee for the students and wives. He also sponsors a graduation reception at the close of the course.

(4) A more senior AGC Captain is assigned as Faculty Advisor to assist in academic counseling. He and his wife work closely with the MLI and wife in developing the social program of the class. Coffees are given for the student wives. The Advisor and MLI and their wives attend all social functions of the class.

(5) As a part of the inprocessing, each class views a personalized TV tape welcome to the Army, and the Corps, from MG V. L. Bowers, TAG.

(6) Throughout the OBC many discussions with the class as a whole and on an individual basis are held to foster a better understanding of the Army and what it means to be an Army officer. Counseling is provided to assist the individual with his academic, personnel, and professional goals or problems. Interviews with a representative of AG Branch are scheduled for interested students.

(7) Intramural and social programs are encouraged as a means of developing class unity and spirit. These programs help to develop leadership potential and close friendships.

5
FACT SHEET

SUBJECT: Junior Officer Retention Program

(8) Each OBC class is invited to a coffee sponsored by an Advanced class and paid for by the Commandant. This informal get-together enables the basic officer to meet with and talk to career officers other than those assigned to USAAGS.

(9) During the course, the Chief, AG Branch, makes a presentation concerning branch policy and the opportunities available to the career AG officer.

(10) A personal letter from the Commandant is sent to the parents of basic graduates.

46

FACT SHEET
ON
JUNIOR OFFICER RETENTION

A. STATEMENT OF PROBLEM

Most junior officers are not aware of all the benefits of an Army career because of their lack of knowledge and limited assignments. These officers must be exposed to the advantages of extending their service obligation and must be provided with adequate information on which to base their decision.

B. USAES PROGRAM

In September 1970, the USAES adopted a formalized Voluntary Indefinite Program (VIP Program). This was originally formalized in a school circular which has been superseded by inclusion in USAES Reg 10-2 (Incl 1). The heart of the program is the requirement for continued counselling. Officers are counselled on initial assignment, at three, nine, fifteen and twenty-one months. A tickler system (Incl 2)* has been instituted to insure that all officers receive counselling in a timely fashion. In 1970, a program was also established whereby junior officers would move from job to job to get experience (Incl 3).* In the first two years of duty at the Engineer School a lieutenant could have as many as three jobs--in command, staff and as an instructor at the School. DA publications are also used to aid in the counselling. Each staff and faculty officer is given a copy of "Commander's Guide to the Retention of Junior Officers." In summary, constant counselling and interest from the top down, as well as continuous follow-up and review of the program is required.

Although the majority of credit for young officers going Voluntary Indefinite must be given to interest in the Army and its programs, the "whole man concept" employed at the USAES plays some part in their decisions. The USAES has been emphasizing leisure time activities and the social side of Army life as well as professional inducements, such as schooling and individual study. All of these aspects blend together in making a more well-rounded, satisfied officer. It is believed that the atmosphere provided at Fort Belvoir has been conducive to an accelerated rate of Voluntary Indefinite submissions.

*Inclosures removed for sake of brevity

FACT SHEET

1. SUBJECT: Junior Officer Retention

2. SOURCE: U. S. Army Ordnance Center and School

3. PURPOSE: To outline the concept and implementation of the Ordnance Junior Officer Retention Program.

4. GENERAL: One of the primary reasons for the success encountered since 1967 in converting Ordnance OBV lieutenants to Voluntary Indefinite status lies in the joint efforts and close cooperation between the Ordnance Branch of OPO and the Ordnance Center and School. The emphasis placed on individual treatment by both the Ordnance Branch of OPO and the USAOC&S, coupled with the concept that every Ordnance Officer has a "HOME" at the school play another large part in this program. Finally much of the success can be attributed to the emphasis continually maintained through staff effort in studying various facets of this question of junior officer retention. Although no single part of the Ordnance Junior Officer Retention Program is unique nor revolutionary, the combined efforts and emphasis have achieved significant results.

5. DISCUSSION:

a. From the welcome packet to the final graduation ceremony, the curriculum, social and distaff programs have been closely integrated to provide the newly commissioned officer and his family a smooth transition from civilian to military life. Inclosure 1 details the consecutive actions made to influence and guide the Basic Officer Course student. It should be noted that the function and work of the tactical officers is critical to the success of this portion of the program. Only the best officers, properly motivated and trained are employed. At the Ordnance School these are Regular Army, combat area experienced captains who have had prior troop duty. Two of them are assigned to work with each basic course class with constant direct access to OPO in the resolution of personal problems and assignments. Another item of note is the indoctrination of both the young officer and his wife toward a military career and the Voluntary Indefinite category. This is a soft sell, but by the time the OPO team arrives to culminate the effort, the majority of the basic course officers have already been recruited.

b. The concept that every Ordnance officer has a "HOME" at the Ordnance School is accepted and plays an important part in the minds of junior officers. An Ordnance Directory is published by the Ordnance Directory Association and occasionally a Bulletin is published for distribution to Ordnance Officers worldwide. These documents are read and used by Ordnance Officers throughout the Army and contribute immeasurably to their sense of belonging. In addition the Ordnance Center and School provides a place for central referral of all types of problems, from personal to technical, experienced by Ordnance officers. This service is used, is responsive, and permits Ordnance junior officers to better meet the complex technological challenges of their assignments.

c. To maintain the momentum of the program as well as to retain proper balance and to seek new ideas, the staff of the Ordnance Center and School has continued to examine how junior officers can be retained, why Ordnance officers leave the service and to study the utilization and career development of junior officers. Constant liaison with OPO is maintained in the development and use of these studies. Although no startling nor dramatic breakthroughs have been achieved as a result of this work, the mere fact that staff effort continues in this area has contributed to the overall awareness of this problem and has certainly contributed to the success of the program. The extent and diversification of these studies can be seen from inclosure 2 showing subjects of the various studies made or in progress.

6. NOTE: To obtain further, more specific information, contact the Office of the Secretary, USAOC&S, APG, MD, telephone extension 2361/2762.

Consecutive Actions Made to Influence
and Guide the Basic Officer Course Student

1. Prior to arrival.
 - a. Welcome letter from Assistant Commandant.
 - b. Information packets sent concerning USAOC&S and APG Post Support Activities.
 - c. Welcome letter to wife signed by Class Coordinator with Welcome Packet for wife.
 - d. Personnel and health records reviewed and required inprocessing coordinated in advance.
 - e. Selection of sponsor by Social Coordinator, wife of Class Coordinator.
2. Upon arrival.
 - a. Inprocessing centrally coordinated.
 - b. Officers greeted during nonduty hours and immediate assistance rendered concerning housing, Post transportation and Army Community Service by representative of Class Coordinator.
3. During Course of Instruction - Wives are completely integrated into Officers' Wives Club activities by Social Coordinator.
 - a. First week.
 - (1) Welcome and orientation by Commanding General.
 - (2) Tactical officers assigned who provide -
counseling
career guidance
assignment assistance
 - Work of Tactical officers is critical to program. Only most outstanding are used.
 - (3) Class leaders' meeting with command group in order to establish direct communication with class.
 - (4) Wives' orientation, by Class Coordinator, Social Coordinator and Hospital personnel, tour of post and coffee with wife of Assistant Commandant. Briefing by Assistant Commandant.
 - (5) Staff and Faculty Sponsor activities.
 - b. Second week.
 - (1) Commanding General's Reception.
 - (2) Wives' coffee at home of sponsor.
 - c. Third - Fifth week.
 - (1) Ordnance Officer Symposium concerning MOS area.
 - (2) Wives' coffee at Officers' Club.
 - (3) Formal counseling by tactical officers.
 - (4) Class social activity.
 - (5) Wives' tour of Materiel Test Directorate.
 - (6) Class leaders meeting with Command Group.
 - (7) Career briefing by Commandant and Assistant Commandant.
 - d. Fifth week.
 - (1) "Dining-in".
 - (2) OPO Briefings.
 - (3) OPO Social and briefings for wives.
 - (4) OPO Interview with each officer.

e. Sixth week to ninth week.

- (1) Class social activity.
- (2) Wives' coffee at Officers' Club.
- (3) Wives' coffee or cocktails at home of sponsor.
- (4) Formal counseling by Tactical officers.
- (5) Class leaders meeting with Command Group.
- (6) Graduation party.
- (7) Graduation

51
JUNIOR OFFICER RETENTION STUDIES

<u>Subject</u>	<u>Date</u>
Junior Officer Counseling Procedures for the USAOC&S	Sep 69
Ord Officer Accessions and Retentions	Mar 70
Quasi-Military Assignments within USAOC&S	Aug 70
Feasibility of Dependent Services Council within USAOC&S	Aug 70
Ord Officer Resignations after 3 and 4 years of active service	Mar 71
Probable ord officer strength and grade distribution in 1975	May 71
Applicability of MOS officer training to initial duty assignment	Jun 71
To determine effect of college education on promotion rates	Continuing
To determine significant factors effecting prestige of Officer Corps	Continuing

FACT SHEET

1. SUBJECT: Allied Officer Program

2. PURPOSE: To outline the organization of the Office of the Director of Allied Personnel, the Fort Leavenworth Sponsor Program and the Know Your World Program as conducted at the U.S. Army Command and General Staff College.

3. BACKGROUND: Allied officers have been attending courses at Fort Leavenworth since 1894 when LT Henry Le Comte of the Swiss Army reported for six months of study. Since that time 3,412 officers from 76 different nations have graduated from Fort Leavenworth. The Allied Personnel Office began as a section in the Training Division of the College in 1943. The section principally was one for interpreters to assist in the training of the Brazilian officers who attended the "Brazilian Command and Staff Course". In August 1947 the section was named the "Allied Officers Section" and from that time to the present, the organization and mission have centered around a personal affairs section and an instructional section with their attendant activities.

4. DISCUSSION:

a. Organization of the Office of the Director of Allied Personnel. The office is authorized one (1) Colonel, one (1) Lieutenant Colonel, two (2) Chiefs of Sections who may be Lieutenant Colonels or Majors, one (1) MSG Chief Clerk, one (1) E-4 Clerk and two (2) Secretaries GS-5. There are two operating sections, Personal Affairs and Instructional. The Personal Affairs Section takes care of all the records, orders, billeting, pay, and all personal matters. The Instructional Section is responsible for the five-week English Language Refresher portion of the Allied Preparatory Course and the Know Your World Program (see Incl 1).

b. Fort Leavenworth Sponsorship Program. Each Allied officer and family have a military sponsor and two civilian sponsors. The U.S. officers who are at Fort Leavenworth at the time of the arrival of the Allied officers are eligible to volunteer to sponsor Allied officers. The military sponsor helps the Allied family to obtain quarters, automobiles, etc. The civilian sponsors are provided by the Jaycees in Leavenworth and by the People to People Organization in Kansas City (see Incl 2).

c. Know Your World Program. This is a program during which the officers from each nation volunteer to make a one hour presentation on their country. It usually consists of 30 minutes of slides and vugraph transparencies used to explain the history, culture, education, government and historical landmarks of the country and followed normally by a 30 minute travelog type film. (see Incl 3)*

*Inclosure removed for sake of brevity

FORT LEAVENWORTH SPONSORSHIP PROGRAM

The Allied officers and their families attending the USACGSC have two types of sponsors, Military and Civilian.

The Military Sponsors:

a. Personnel eligible to sponsor. Primarily the sponsors come from the officers who are permanently assigned to Fort Leavenworth either in the school, on post, Munson Army Hospital or any other post unit. Incoming students that are assigned in sufficient time to be of assistance to the Allied officers upon his arrival may also be sponsors. Other students are not used as "official" sponsors due to the fact that they are not here at the time of the arrival of the Allied students, and this is the time the Allies require the most assistance and need of a sponsor.

b. Sponsoring procedures. As soon as the Director of Allied Personnel determines the number of students and the countries from which they will come (usually by early March of each year), a letter is sent to the present sponsors giving them first choice to sponsor an officer from the same country that they are sponsoring. If he desires to change countries he has priority on a first come first assigned basis to pick up an officer from a country from which the military sponsor will be reassigned or changes countries. After giving the present sponsors the first choice, a second letter is given post wide distribution to all officers notifying them of the number of unsponsored Allied officers. This letter is signed by the Post Chief of Staff. Should the above two letters not obtain the necessary number of sponsors, then the personnel of the Office of the Director of Allied Personnel (ODAP) make personal calls on prospect sponsors. The only difficulty is that personnel losses are usually in June of each year and their replacements arrive in August when the Allied officers are already sponsored. However, as officers arrive they are given the opportunity to go on a list of available sponsors to replace any unexpected losses during the school year.

c. Sponsor duties. We do not specify any particular requirements, but do make suggestions. See the attached information for sponsors, Tab A. The sponsors will normally come in and check the biographical or personal data form of the Allied officer and ask for any other do's and don'ts. Should the sponsor be on leave when the Allied officer arrives, the sponsor usually arranges for a substitute. The sponsor will normally meet the Allied officer on his arrival at Kansas City, bring him to the initial processing at ODAP; assist him in obtaining a house if he is accompanied; assist in buying a car; obtaining drivers license; enrolling the children in school; make many social events with the Allied officer; and on departure, the sponsor usually assists the Allied officer to the Kansas City airport.

54

The Civilian Sponsors:

a. Each Allied officer has a sponsor in the City of Leavenworth. This program is under the auspices of the Leavenworth Jaycees and for which they have received a number of national awards. The Jaycees obtain the civilian sponsors and conduct an event called "Operation International" at the City Hall (usually in August) to introduce the Allies to their sponsors. The senior Allied officer is given a Key to the City; the Mayor and the USACGSC Commandant speak, and then the Allies are taken to their sponsor's home for home hospitality. Many of the Allied students have already met their sponsors by this time for a number of them are their landlords. Also the civilian sponsors usually ask for the same country year after year and the Allied officers pass on information to the incoming officer. The Portuguese officers have had the same sponsor for the past 14 years. In May 1971 the Italian Attache presented the Leavenworth civilian sponsor of the Italian student the Medal of Cavalier First Class. This award was given by the President of Italy for having sponsored or assisted the last 12 Italian officers to attend USACGSC.

b. Each Allied officer has a civilian sponsor in the Kansas City area. This sponsor is provided by the Greater Kansas City People to People Council. The sponsors are introduced to the Allied officers either at a Picnic-Rodeo or at a home hospitality day. The type of event is determined by the local group and the date of the arrival of the Allies. The Allies receive many individual invitations from their Kansas City sponsors following the opening event.

Other Sponsors:

a. There are a number of national groups in Kansas such as the English Speaking Union, Club Interamericano and others that cater to officers from particular countries or who speak a particular language.

b. Kansas City is the sister city of Seville, Spain, and there is a large "Friends of Seville Ball" each year at which the Spanish officer and his wife are invited as guests.

c. The Businessmen's Assurance Company always hosts the entire Allied class to a Saint Patrick's Day stag dinner and cocktail party. A number of individual sponsorships arise from the affair.

d. The Kansas City Chapter of the Military Order of the World Wars always hosts the entire Allied class to a stag luncheon. A number of individual sponsorships arise from this affair.

e. Each Allied officer is a guest of the Leavenworth Rotary Club, and they make contacts at this noon meeting.

Know Your World Program

The Know Your World Program is a group of one hour presentations on each of the many nations represented by the Allied student body and is given by the Allied students from that nation. This program provides the Allied student an opportunity to wave his flag and to more or less meet the "Informational Objectives" of his country.

The program is funded as a part of the course costs to each Allied student. The 1969/70 school year budget included \$6,637.00 for the 50 presentations. This cost is based on cost of printing flyers, making posters, preparing multi-colored vugraphs, producing 2 x 2 slides from magazine pictures, film rentals and civilian labor to operate projection booth both during rehearsals and presentations. The Office of Director Allied Personnel retains the material used from year to year and has a good supply of vugraphs and slides used in previous years; however, as each presentation is the individual's desires, some use the training aids already available and others develop a completely new presentation which increases the cost of the program.

The manner in which the program is introduced to the students and other items of interest are as follows:

1. During the pre-course orientation the Allies are given a 20 minute briefing on the Know Your World Program. This briefing includes:

a. Emphasis that the KYW Program is a voluntary program. One that provides the Ally an opportunity to tell us more about his country. Also it is organized with $\frac{1}{2}$ hour of slides and vugraphs and $\frac{1}{2}$ hour film. It is readily adapted for a 30 minute speech should the individual be asked to make a presentation in the local community. We also inform them that our office has 2 x 2 slides, vugraphs and a list of available film that have been used in previous years by each country and that we will give them all the administrative assistance they require. We inform the Ally that the audience is made up of military and dependents, school children, and many civilians from the local community. The Fort Information Officer sends out over 800 flyers advertising the monthly schedule of the program (see Incl 1).

b. The students are given a flyer (Incl 2) which touches on the high points of the briefing and asks the Ally to return the tear sheet indicating if he will present a KYW Program and the month he desires to make it. Because most presenters want their presentation after the first of the year, he is asked to give three choices of months.

2. After the students have returned the tear sheets a schedule of months is put out to the students. CGSC has found it to be prudent to have the schedule heavy in the early fall months for two reasons: (1) The presentations are better attended during the bad weather months, and prior to Christmas, and (2) As the programs are presented those students who declined at first, usually decide to give a presentation and the time is needed in the spring months for these "non-programmed" presentations.

3. Sixty days prior to a presentation, the student will receive a copy of general instructions, and a general questionnaire (see Incl 3).

4. A big problem in producing training aids or slides, is that of copyright. If the magazine is U.S. such as National Geographic, the request for reproduction must be handled as normal and takes 60-90 days. If the magazine or pamphlet is a foreign publication and is not restricted in its copyright in the U.S. the Army Field Printing Plant will accept a statement of copyright release from the officer (see Incl 4).

5. Dos and Don'ts

a. Make the presentation one of touristic interest. Do not discuss any politics or military that would cause offense to any other Ally in attendance (Arab and Israel - India and Pakistan).

b. Have the student solicit hand-out material from the Tourist and Information Department of his Attaché in Washington. These booklets are one of the first things the attendees look for.

c. If you have more material or movies than can be shown in one hour, show the entertaining movie such as Skiing in the Alps prior to the beginning of the presentation. There are usually people in the auditorium 15 minutes early for an opportunity to listen to "Country" music and see additional slides of country scenes or a film strip.

d. Small inexpensive souvenirs can be given out as door prizes, but nothing expensive (this stops one country from trying to outdo another).

e. Countries such as Colombia and Brazil make quite a hit when they serve mild and strong coffee respectively at the conclusion of the presentation. Students must understand that no alcoholic beverages can be served such as German beer or French wine.

f. CGSC normally has the Ally's military sponsor make the introduction at the beginning of the presentation, and his fellow section mates act as ushers.

g. CGSC has a picture taken of the Ally at the podium which has his name on it, and if he has any extra "Tourist Trap" like material it is placed on a tack board at the entrance of the auditorium, also a picture is taken there. These are sent to the Ally with a thank you letter from the Director of Allied Personnel.

h. Make a tape of the presentation, so that next year's student can hear what was said last year. This helps him in making up his mind early as to the type of presentation, reduces the expense in producing training aids, and helps in avoiding controversial subjects.

6. Movies. The best source of movies for the last half of the presentation is from the Attaches in Washington, D.C. The next best source is from the overseas airlines that service that country. If there is any difficulty in this area, CGSC will be glad to send the specific address we use on any specific country.

ALLIED LIAISON DIVISION
DIRECTOR OF ADMINISTRATION
US ARMY ARMOR SCHOOL

PURPOSE

To provide information pertaining to the Student Officer Wives Program.

FACTS

1. An extremely viable Student Officer Wives Program including orientations, tours, coffees and teas, and social gatherings. The purpose of this program is:
 - a. To insure that the wives are properly welcomed and received into the "Army Family" at Fort Knox.
 - b. To orient the wives on the nature of the courses their husbands are attending.
 - c. To inform the wives of the facilities available to them at Fort Knox and the surrounding area.
2. The following individuals are responsible for that portion of Wives Program as indicated below:
 - a. The Director of Administration has over-all staff responsibility for the program.
 - b. The Chief, Allied Liaison Division, Directorate of Administration is responsible for direct coordination with appropriate wives of the Staff and Faculty who assist in the program.
 - c. The Officer of the Director of Instruction is responsible for establishing dates for all official activities which involve the Assistant Commandant and tours of school facilities.
 - d. The Commanding Officer, School Brigade is responsible for furnishing support as required by the Director of Instruction or the Chief, Allied Liaison Division.

e. The Academic Staff Directors, Department Directors and the Commanding Officer, School Brigade are responsible for maintaining a policy file of the program and orienting the Staff and Faculty wives in their role in the program.

3. The Student Officer Wives Program is established by Letter, Headquarters US Army Armor School, dated 9 October 1970, a copy is at Inclosure 1.* This letter is currently being reviewed prior to republication. Significant changes have been prepared by the Wife of the Assistant Commandant for inclusion into the Program and a copy, when published, will be forwarded to your office.

*Inclosure removed for sake of brevity

66

FACT SHEET
ON
MARINE CORPS COMMAND AND STAFF COLLEGE
PHYSICAL FITNESS AND WEIGHT CONTROL

1. Upon reporting to the school each student is weighed. If he does not measure up to established weight control standards, he is given 30 days to reduce. Consultation with a doctor and/or a mandatory fitness program conducted by the Physical Fitness Academy insures that standards are reached and maintained. In some cases more than 30 days is required.
2. Within the first month the standard Marine Corps Physical Readiness Test is administered. It provides the officer an inventory of his physical fitness.
3. A running program titled "Run For Your Life" has been established. The College competes with the Amphibious Warfare School on the basis of average miles per man. Within the College there is competition among the twelve conference groups. Results are posted each week. At the end of the year, the top individual runner is recognized by the appearance of his name on the plaque established for this purpose and posted in the student lounge. Certificates are awarded at the end of the school year for each student who has run 200 or more miles. The current year appears to be the best ever with students averaging over 17 miles per week. A minimum standard expected of each Marine officer is 10 miles per week. Special T-Shirts have been procured and are worn by the students for this purpose.
4. Student reaction to the program is favorable once they get with it. A special note is the reaction of student wives who indicate improvement in their husband's fitness, disposition, etc. Student wives are asked to help by watching their husband's diet.
5. The Faculty and Staff participate in this program, and, in fact, lead the way.

61

FACT SHEET ON EDUCATIONAL COUNSELING PROGRAM

I. GENERAL:

The Transportation School has a counseling program for officer students which includes assigning faculty advisors; advising academically deficient students; testing academic aptitudes; providing career guidance; counseling on civil schools opportunities and requirements; and informing the incoming student on regulations and facilities of Fort Eustis.

II. CURRENT STATUS:

A. Each officer student is assigned a faculty advisor who is an officer or warrant officer on the Staff and Faculty. The faculty advisor assists, counsels and evaluates the student during his course of instruction. The advisor keeps informed of the student's progress, problems affecting him, his attitude and aptitude for future assignments including schooling. He also evaluates the student's ability to communicate and to lead. USATSCH Reg. 350-8, (inclosure 1)* governs the responsibilities of faculty advisors.

B. Closely allied with the faculty advisor program is the counseling given to academically deficient students. Inclosure 1 defines academic deficiency and details the counseling chain (Annex A to Reg. 350-8) through which the student who is in a borderline or failing status progresses. As he progresses through the chain, the student is interviewed and counseled, and a record made of findings and recommendations (on TCFE Form 9033-TS, inclosure 2)*concerning his special problems, difficulties, etc. These Student Interview forms, reflecting counseling actions, play an important part in the deliberations of the Faculty Board which may be convened to determine the proficiency or deficiency of students.

C. Student officers are tested before they begin academic work. Standardized tests (Otis IQ, Iowa Silent Reading Test, and California Test of Mental Maturity) provide important indicators of students' academic potential. Results are used in conjunction with academic counseling and help to pinpoint deficiencies in the student's preparation for academic work. Results are also used to trace trends in student ability, with possible implications for curriculum modification.

D. Career educational guidance is a combined, and continuing, effort of OPO TC and the SA--EA. Daily contact is maintained so that information on TC requirements, programs, funding, civil schools spaces, etc. is current. OPO TC representatives make regular, announced visits to the School to counsel officers, in groups and individually, on career problems and opportunities. Presentations by TC provide essential guidelines for SA--EA counseling on the civil schools program.

E. Counseling on graduate and undergraduate degree programs is provided to officer students by deans, administrators and faculty of several

62

institutions of higher learning on a continuing basis. The Special Assistant to the Commandant--Educational Advisor brings to the School top-level educators from colleges and universities to acquaint them with the mission and functions of the School, encouraging a meaningful and mutually-productive association. Examples of such relationships are those maintained with the College of William and Mary and Hampton Institute. Both institutions provide "Bootstrap" electives and other educational programs for TC officers. One notable result of these close ties between USATSCH and institutions of higher learning is the informal agreement with the College of William and Mary to grant credit for TOAC towards their Masters in Business Administration Degree. Another is the in-house USATSCH college counseling and registration procedure which is tailored to the requirements of TOAC students.

F. Another essential facet of the student officer counseling program is that pertaining to regulations that govern the student while at the School and Fort Eustis; the facilities available to him on post; schools located nearby for dependent children; and a host of administrative requirements the student must observe. Inclosure 3* is the Handbook for Student Officers which is mailed to the incoming student to help him understand what will be required of him once he begins his course of instruction at the School. Inclosure 4* provides information on Fort Eustis.

*Inclosures removed for sake of brevity

IV CURRICULUM

RESEARCH AND ELECTIVES PROGRAMS

The research and electives program at the Naval War College includes Winter Term Research Seminars, Spring Term Electives, Group Research Projects and individual research.

Winter Term Research Seminars are conducted by civilian chair holders, staff advisors and consultants, military chair holders and military faculty officers. Students in those seminars conducted by civilian chair holders or by staff advisors and consultants will prepare a research paper in a related subject area; students in seminars conducted by military chair holders will either prepare a research paper or participate in a group research project into a significant area of naval or other military affairs. The program consists of fifteen 2-hour classes with a maximum of fifteen students. Students in College of Naval Warfare who are not in a university program, students in College of Naval Command and Staff with no advanced degree who are not in any university program, and all students in the George Washington University masters program enroll in Winter Term Research Seminars.

Spring Term Electives are lecture oriented, and research papers are not required. There is generally no limit to the number of students who may enroll in any particular elective. Students may enroll in an elective which follows up or builds upon their winter research if they so choose, but they are not restricted to any such topic area. All students, except University of Rhode Island master degree candidates and CNC&S University of Rhode Island baccalaureate students enroll in a Spring Term Elective.

Group Research Projects are open to students who already have an advanced degree, or who possess a special skill and/or experience necessary to conduct an effective investigation. The students work with 1-3 other students under the guidance of a faculty research advisor and will produce a report on the results of their research which is an analysis of a problem of significance to the Navy. Topics are selected from a list of problems sponsored by the War College, its schools, individual chairs, the CNO, the Department of the Navy, or other branches of the Armed Services. Selected students with advanced degrees may also be permitted to pursue a similar, but independent study program with the goal of publication.

66

NAVAL WAR COLLEGE

CURRENT ATTITUDES SEMINARS

The Current Attitudes Seminar is offered as a Spring Term Elective with the objectives of providing examination and discussion of current issues, providing increased understanding and determining possible attitudes of junior officers of today and the future, and improving the image of the military in general and of the Naval War College in particular. The 1971 seminar consisted of ten groups, each composed of five officers and five civilian students from Brown University, Pembroke College, the University of Rhode Island, and Salve Regina College. Six seminars were held with these civilian students, one seminar with fleet junior officers and one seminar with OCS students. Topics of discussion included minorities, poverty, institutional structures, values and mores, law and order, the draft, ROTC, Indochina, national security, arms control, and the balancing and reordering of priorities. Discussion was not structured or limited as to time, and any topic within the broad scope of discussion was welcomed. Participants were provided with a bibliography prior to the first lecture.

Current planning underway for the 1972 program envisions a lecture at the beginning of the term on one or more current topics, followed by an audience dialogue. In this way a common ground will have been established as a takeoff point for a new series of seminars. We also hope that civilian student participation will be freely open to all students at the participating colleges, rather than to those chosen by their deans as happened in the past, thereby restricting the "sample." In the future we hope to set up the program in such a way that civilian students receive credit for the course at their respective schools.

67

FACT SHEET

SUBJECT: Senior Officer Debriefing Program

1. Background. The Senior Officer Debriefing Program was established in the late fall of 1970 at the express direction of the Chief of Staff, US Army. The purpose of this program is to provide an insight into command and management techniques utilized by senior officers in key positions in the US Army and to further scholarly research of US Army history.

2. Objectives.

a. Obtain an insight into selected senior officers' concepts of command and management techniques employed in making decisions during their careers as Army officers.

b. Penetrate the superficial written records to obtain narrative descriptions of background events and obscured, unknown, or unstated motivations behind many significant events and decisions.

c. Coordinate the Debriefing Program with the expanding manuscript acquisition program, thus adding to existing research resources for which manuscript materials are inadequate or unavailable.

d. To interview each participating officer in detail concerning his life and career as an Army officer.

e. Provide a repository for interview materials to be used by scholars studying at the US Army Military History Research Collection.

3. Scope. The Senior Officer Debriefing Program is scheduled on an annual basis corresponding to the academic year of the US Army War College. A number of retired general officers are selected for participation in a series of interviews conducted by a student of the Army War College resident class. The interviews are based upon thorough analysis of the general officer's career, using official documents, personal papers, and other primary and secondary source materials. The recorded interviews are transcribed, with both transcription and original tapes available for scholarly research. Appropriate security classifications are applied to both tapes and transcripts when content so dictates. Each individual series of interviews varies in content scope based upon the varied careers of the general officers concerned. Emphasis is directed toward key assignments and career highlights. These are determined jointly by the interviewer and the interviewee as a part of the first recording session.

4. Programs for Academic Years 1971 and 1972. The Senior Officer Debriefing Program is currently in its second year. In Academic Year 1971, the following officers were interviewed:

68

General James K. Woolnough
General Frederick J. Chesarek
Lieutenant General Austin W. Betts
Lieutenant General Jonathan O. Seaman
Lieutenant General Andrew Jackson Boyle
Lieutenant General Arthur Trudeau
Lieutenant General Paul W. Caraway

Over 180 hours of interview time were recorded. For Academic Year 1972, the following general officers have been invited to participate:

General Earle G. Wheeler
General James H. Polk
General George R. Mather
General Ben Harrell
Lieutenant General William Yarborough
General Harold K. Johnson
General Matthew B. Ridgway
General Joseph L. Collins
General Charles L. Bolte
General Lyman L. Lemnitzer
Major General Kenneth J. Hodson

The results of the first year's efforts represent an unprecedented acquisition of personal opinions and insights in the reasons behind decisions made within the US Army management structure as they affected policies and decisions made during each officer's period of service.

5. Availability of Debriefing Program Materials. The US Army Military History Research Collection was selected by the Chief of Staff as the sole repository for the tapes and manuscript transcripts resulting from this program. The products of the program thus are coupled to the personal papers and other primary materials in the Research Collection to provide a central source for scholarly research of military history. All Army schools have access to material produced from the Senior Officer Debriefing Program, subject to security and proprietary restrictions imposed by each general officer concerned. Inquiries regarding the program or use of transcripts should be addressed to the Director, US Army Military History Research Collection, Carlisle Barracks, Pennsylvania, 17013.

FACT SHEET

SUBJECT: US Army Military History Research Collection

1. Background. The US Army Military History Research Collection was established in June 1967 by direction of the Chief of Staff of the US Army. Originally a part of the US Army War College, the Research Collection was reorganized as a Class II activity of the Office of the Chief of Military History by Army Regulation 870-10 in January 1970.

2. Mission. The Military History Research Collection has the twofold mission of preserving materials of historical significance relating to the military history of the United States, with emphasis upon the US Army, and of making these materials available for research by all serious scholars, civilian and military alike. In the four years since its establishment, the Research Collection has grown in size at a remarkable rate. Its holdings now include over 250,000 books, more than 30,000 bound volumes of periodicals, over 400 collections of personal papers and manuscripts, as well as thousands of documents, photographs, maps, posters, art works, motion pictures, audio tapes and other research media. The Research Collection is rapidly gaining recognition as the outstanding single source for scholarly research in military history and allied topics.

3. Facilities. Colocated with the US Army War College at Carlisle Barracks, the Military History Research Collection provides study access to all of its research materials. Classified items are made available to individuals with the proper security clearances. Interlibrary loans are encouraged, with books and bound periodicals available on this basis. Manuscripts and personal papers must be used on the premises. Xerox copying is available for limited copying of reference materials. At present, the Research Collection has the capability of microfilm copying only by the aperture card method. It is hoped that microfilm reel copying will be available in the near future. The Research Collection also has available the Xerox 4000 Telecopier which permits rapid transmittal of 8½" x 11" page of copy or a photograph in four minutes over any type of telephone link. Study carrels are available to individuals spending any length of time in research.

4. Publications. Although the Military History Research Collection has not sponsored publication of original research writings, a number of reference aids have been prepared. These include bibliographies of materials of current interest, such as the US Army and Domestic Disturbances, the US Army and The Negro, and Unit Histories of the US Army. Additional bibliographies are being prepared. Routine distribution includes the Commandants and librarians of various Army schools as well as all post libraries. The Research Collection also publishes a periodic newsletter, "Perspectives in Military History."

5. Special Projects. Two special projects are currently sponsored by the Military History Research Collection. The first, the Senior Officers Debriefing Program, is an oral history program instituted by the Chief of Staff, US Army. This program generates taped interviews and transcripts of these interviews with selected senior officers. The second project involves a survey of Spanish War, Philippine Insurrection, and Boxer Rebellion veterans and widows of veterans. The purpose of this project was to locate and obtain letters, diaries, photographs, and other research materials relating to the period of service of the individual concerned. The results of this effort have provided the largest single repository of material concerning US Army efforts from 1898 to 1914.

6. Use by Other Department of Army Activities. Use of the Military History Research Collection by all Department of Army agencies and by military personnel is encouraged. Bibliographic assistance and inter-library loans are available as required. Lengthy projects involving detailed research cannot be undertaken at present because of the small size of the Research Collection staff.

71
Industrial College of the Armed Forces

Fact Sheet

Narrative History of the Correspondence School

The Correspondence School was established in 1950 and applications were accepted in 1951 for a six volume course entitled "Emergency Management of the National Economy."

In 1954 the course was expanded to 22 volumes (divided into five integrated units) and in 1956 the title was changed to "The Economics of National Security." In 1965 the title was changed to the "National Security Management" course and presently consists of 26 volumes.

In 1960 the Navy Department approved "The Economics of National Security" course as part of the curriculum for the group study program in the Naval Reserve Officers Schools.

In 1966 the Commandant, Marine Corps authorized Volunteer Training Units to participate in group study for the "National Security Management" course (formerly The Economics of National Security course). Over 1500 Marine Reserve personnel enrolled in the program and approximately 1300 graduated two years later.

In 1968 CONARC accepted the "National Security Management" course on a trial basis for USAR schools desiring to offer the course. During academic year 68-69 approximately 800 students were enrolled in 49 USAR Schools and/or RTU's. By 1 January 1970, the Army group study program had expanded to 163 classes with an enrollment of 3941 students. The program continued to grow and on 1 January 1971 the course was being offered to 4402 students in 188 Army classes.

In 1969 The Department of the Air Force accepted the "National Security Management" course in their Air Reserve Squadrons with an initial enrollment of 1400 students in 108 squadrons. In 1970 a major reorganization within the Air Force Reserve program reduced the enrollment to 1275 students in 119 ARS's.

On 1 July 1967 the Correspondence School embarked on a second course, "Management in the Department of Defense," using selected texts from the more comprehensive "National Security Management" course and supplementing these texts with monographs on selected areas of the Defense mission. Initial enrollment in this course was very encouraging, however, after three years, enrollment declined to the point where it was no longer feasible to continue the program. The

course was phased out as of 30 June 1971. During it's life, 4700 students had enrolled in the course and 3028 students had received certificates of completion.

During the last few years several US Army Schools have offered the "National Security Management" correspondence course as an "elective course" in their advanced resident school curricula. The following schools have participated in this program.

Command and General Staff
US Army Intelligence School
Signal Corps School
Armor School
Infantry School
Chemical School
Judge Advocate School
Adjutant General School
Ordnance School

The Department of the Air Force has recently made the ICAF "National Security Management" correspondence course or the Air War College course a mandatory requirement for promotion to General officer for Reserve officers.

In January 1971 enrollment reached an all time high of 10,800 students. With an extremely austere budget, a personnel authorization of 18 spaces for the Correspondence School and the desire to be more responsive to the needs of the students, it was necessary to establish a ceiling of 9000 students enrolled at any one time. As a result, it was necessary to raise the enrollment eligibility requirements as listed in the "National Security Management" Information Booklet (Attachment II). Further a more stringent policy was established on granting of extensions for assignment submission. The maximum extension authorized today is 30 days.

FACT SHEET
ON
MARINE CORPS COMMAND AND STAFF COLLEGE
EDUCATIONAL APPROACH AND PHILOSOPHY

1. The main objective of the college is kept in mind at all times, i.e., to prepare student officers for command and staff duties in their present and next higher grades. Accordingly, emphasis is placed on professional military subjects with emphasis on amphibious operations, command and staff functioning, joint operations, and effective communications both oral and written. Appropriate emphasis is placed on physical fitness and weight control.
2. Due to the heterogenous background of students, there is a heavy schedule of platform instruction in the early weeks of school. This instruction is designed to refresh, update, or teach, as appropriate, in order to build a common foundation for advanced instruction to be given throughout the rest of the year. For most of the course, maximum time is spent in conference group work (12 officers per group) in which there is maximum student participation and application as well as free exchange/communication between the instructor and students. Conference groups are rotated periodically throughout the year.
3. Students are evaluated on all that they do throughout the school year. Specifically, they are given 4 marked requirements which count in this evaluation. Additionally, their performance and participation in conference groups as well as their attitude, appearance, and physical fitness are given appropriate weight in the evaluation process. Students who fail in marked requirements are required to take a make-up examination. Instructors work after hours with those students who feel the need for additional instruction or who fail the exams.
4. The college electives program has been consolidated so that it is given on Tuesdays. This gives the student a change in pace from routine instruction. It allows students to attend courses they elected and provides some free time for research, interviews, and study as the students see fit. This is an added feature this year which the students and staff appreciate.

5. The guest lecture program is a cornerstone of the syllabus. All chiefs of services, unified and specified commanders appear before the student body. State Department speakers present U. S. foreign policy in all areas of the world. College professors, retired officers, speakers representing the legislative branch of the government and others round out the program.

6. Recognition is given to the maturity and responsibility of student field grade officers in that every effort is made to eliminate or minimize those administrative requirements that are considered harassments.

7. From time to time and as indicated by the student load, student attitudes, saturation, etc., the school director at his judgment and discretion curtails instruction, usually for an hour or two or up to half a day. This unexpected bonus serves as a useful release valve on student pressure. Student instruction does not suffer since compensating schedule adjustments are made following such breaks.

FACT SHEET

1. SUBJECT: Strategy and Strategic Studies
2. PURPOSE: To explain Strategy and Strategic Studies instruction at USACGSC.
3. BACKGROUND: Strategy instruction at USACGSC has progressed from area studies in the post-World War II period to its present status. The instruction took on additional dimensions when the Eddleman Commission recommended in 1962 that the student be given an increased perception of the Cold War environment. The course is also specifically designed to permit the graduate to recognize the interface with the political authority in considering some of the more complex situations with which he may be faced. Major progress has been made in the past two years in updating this course and relating it to the current real world situation.
4. DISCUSSION: This course of study is divided into a fundamental phase and an applicatory phase. The fundamental phase provides instruction on the interrelationships of the elements of power, forces and trends in the international arena, and on those nations which provide the threat to the United States and its allies. The applicatory phase deals with strategic analysis, the formulation and execution of US national strategy, foreign policy and military strategy.

This course will assist the student in many different types of assignments after graduation; however, it is specifically designed to help prepare him for high level staff, advisory duty, and command of a US unit in a counter-insurgency. The fundamental phase of Strategy and Strategic Studies instruction consists of 35 hours (12 subjects) which discuss: the role of the nation-state; political, economic and sociological elements of power as they act to enhance or constrain national objectives; and ideologies and other forces and trends which cause action and reaction in the world community. The newly emerging states and the communist nations are analyzed in separate classes. (See Incl 1)* The applicatory phase of instruction consists of 42 hours (13 subjects) which permit application of the fundamentals cited above through the use of a strategic appraisal methodology and conferences/instructor-led seminars on foreign policy and US national strategy. These cover US foreign policy in selected world areas and a thorough analysis of US military strategy. Classes are included on USSR and Communist China military strategy. (See Incl 2)* These phases are supported by eight guest speakers, four in support of fundamental subjects and four in support of applicatory subjects. (See Incl 3)*

*Inclosures removed for sake of brevity

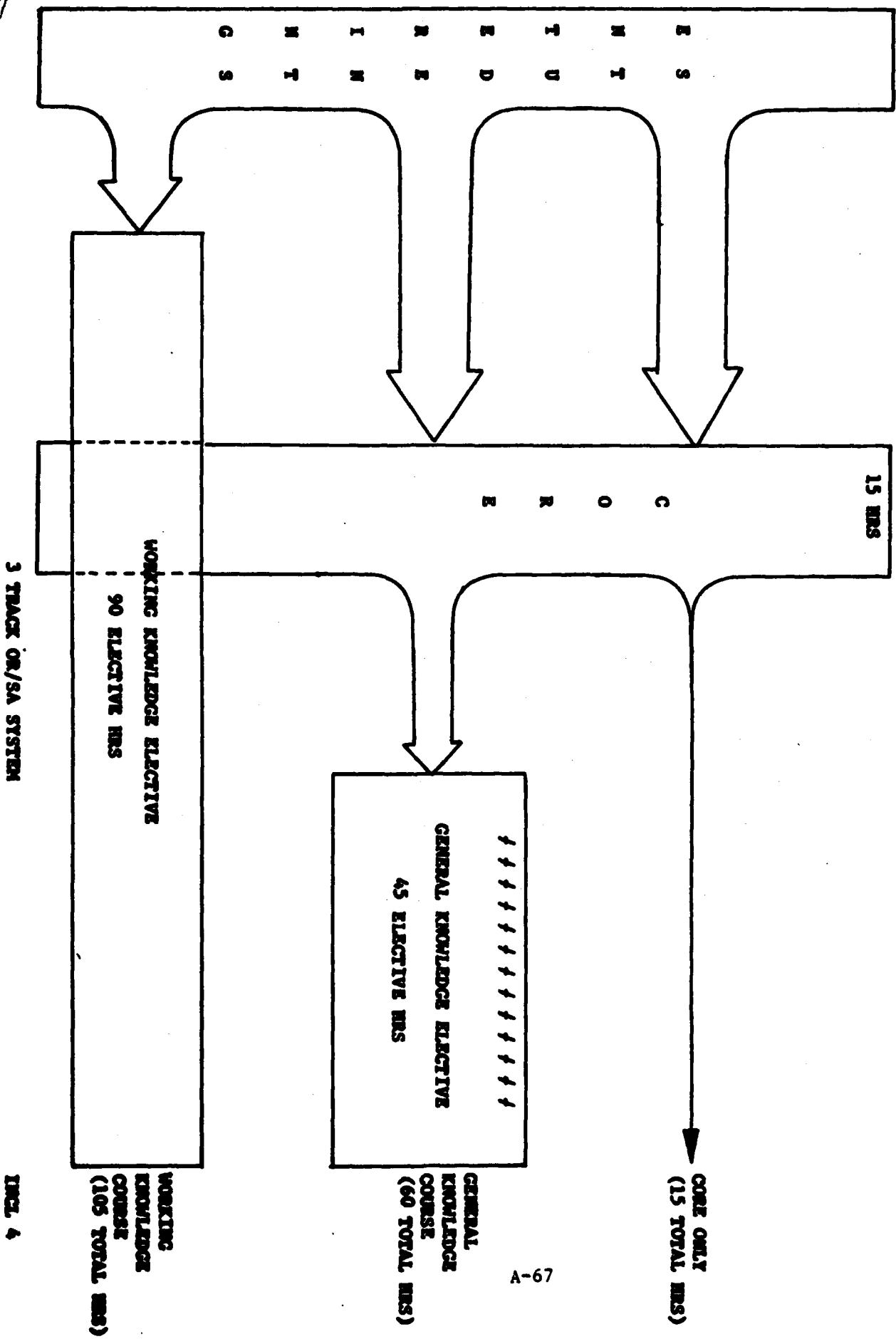
16

FACT SHEET

1. SUBJECT: Three Track System of OR/SA Instruction
2. PURPOSE: To explain the CGSC three track system of OR/SA instruction as presented at the CGSC which provides graduates with varying levels of OR/SA expertise based on their desires and educational levels.
3. BACKGROUND: The purpose of this program is to provide students with the maximum amount of OR/SA instruction consistent with their prior academic training, desires, and CGSC instructional capability. The OR/SA program was originated with 15 hours in the common curriculum and a one semester elective. It became apparent that this general knowledge level did not fill the varying needs of our students. A third track had to be added that would allow a student to attain a working knowledge of OR/SA and also place him in a position to be eligible for the award of the prefix "H". This program is fully implemented in the 1971-72 school year.
4. DISCUSSION: All students attending CGSC receive fifteen class hours in OR/SA (see Incl 1)*: This provides all students with a knowledge of the concepts, limitations, a survey of various OR/SA techniques and a limited communicative ability in the area. This is referred to as track one. Students with a limited math background and the desire may also take a 45-hour elective (see Incl 2)*. This total of 60 hours instruction provides them with a general knowledge and communicative ability in the OR/SA field. This provides track two in our system. Students with at least some college algebra and the desire may take a 90-hour OR/SA elective (see Incl 3)*. This total of 105 hours instruction provides a working knowledge of OR/SA, and sufficient ability to communicate with and supervise OR/SA specialists. This provides the third track. A graphical description of these 3 tracks is shown in Incl 4. Completion of the working knowledge track plus other management courses and war games included in the common curriculum makes a student eligible for the award of the prefix "H". The OR/SA three track system will also be covered in the OR/SA Common Subject Packet (see Incl 5)*.

* Inclosures removed for sake of brevity

71



78

FACT SHEET

1. SUBJECT: USACDC Creative Thinking Award Program
2. PURPOSE: To inform non-participating CONARC schools of the USACDC Creative Thinking Award Program and how it is administered.
3. BACKGROUND: The program is designed to encourage meaningful contributions to the combat developments effort by students attending the principal career development courses. The program was initiated in 1968 and during the period 1968-1970 has resulted in thirty-one acceptable submissions and nineteen awards. In 1970, there were fifty-four submissions -- three received awards and sixteen others were retained for further evaluation.
4. DISCUSSION: The Commanding General, USACDC Combat Systems Group (COMSG), Fort Leavenworth, and CDC agency commanders collocated with service schools are the program administrators.

The program is designed to stimulate imaginative thinking about existing and potential military problems and to provide recognition to those who conduct research on these problems.

Entries may be submitted either through service schools or directly to the CDC agency. All papers are evaluated by a COMSG committee and must meet three basic criteria:

- a. The idea has significant potential value for Army application.
- b. The idea displays creativity and imagination, and is adequately developed.
- c. The idea is original.

Entries may include any research paper done to satisfy an academic requirement during the current school year. Except for research papers of this kind, entries may not exceed 2,000 words.

The award consists of an engraved miniature of "The Thinker", a one hundred dollar US Savings Bond, or one hundred dollar cash award, and a Certificate of Achievement from the CG, USACDC.

29
FACT SHEET

SUBJECT: Exercise North Flank

PURPOSE: Provide background information on AFSC instruction in preparation of Exercise North Flank

1. UNIT OBJECTIVE. Each student should acquire an appreciation for the military, psychological, geographical, and political considerations which confront a senior military commander in the development of NATO Defense Plans.

2. DESIRED LEARNING OUTCOMES. Each student should:

a. Be able to prepare a commander's estimate of the situation in a given area of operations.

b. Become familiar with the significant aspects involved in developing the defense of a NATO country against an aggressor in an action short of general war.

c. Understand the importance of the political considerations as they affect military planning and operations.

3. SETTING FOR THE EXERCISE. The exercise is conceived as a military-political problem which is conducted utilizing real life conditions wherever feasible. The current political environment in Norway with the political constraints which govern military activity is written into the problem. Significant political considerations include Norway's attitude towards:

a. The USSR.

b. The Scandinavian countries.

c. The prepositioning of NATO military forces and nuclear weapons in country prior to an outbreak of hostilities.

d. The NATO alliance and her role in NATO.

Additionally, it is of paramount importance to recognize the political implications inherent in NATO, specifically in regard to the employment of NATO forces.

4. CONDUCT OF THE EXERCISE. The problem consists of three parts. The first two parts have the students play the role of C-3/5 personnel and each group, consisting of four students, submits a written solution. The third part is of a discussion type that does not have the student play an assigned role, however, it includes the faculty adviser leading a seminar discussion.

80

A cursory resume of the exercise is as follows:

Part I. Each student group submits a completed commander's estimate of the situation which is developed based on a change of NATO force structure in support of AFNORTH. The AFNORTH staff (C-5), played by students has been requested to recommend a course of action for the defense of North Norway against an aggressor short of general war.

Part II. As the scenario continues, the aggressor makes a minor incursion of friendly territory (Norway). The AFNORTH staff (C-3) is requested to submit a staff action paper which recommends what course of action, if any, should be taken against the aggressor.

Part III. Attention now shifts to future possible courses of action which the aggressor may adopt. CINCAFNORTH now requests an analysis of the enemy's intentions subsequent to the minor incursion of friendly territory as described in Part II. This portion of the problem is a group discussion effort led by the faculty adviser.

Each student group produces an independent solution for each Part. During Parts I and II student solutions are presented. This is followed by a seminar discussion led by the faculty adviser. These discussions allow for a free exchange of alternate solutions with emphasis on the "why" and "how" of each proposed course of action.

5. METHOD. A 30-hour planning exercise conducted in permanent seminar utilizing a combination of classroom discussion and practical exercises requiring written preparation of selected portions of a commander's estimate of the situation and of a staff action paper.

6. Although the Allied military forces involved in this exercise are relatively small, the political decisions required are broad and far reaching. This exercise has been particularly useful in illustrating political considerations in the development of U.S. military planning and strategy.

FACT SHEET

SUBJECT: Foreign Internal Defense and Development Planning

PURPOSE: Provide background information on AFSC instruction in preparation of FIDD Planning.

1. **UNIT OBJECTIVE.** Each student should be familiar with the methods of Communist-led or exploited insurgencies and understand basic principles for countering them.

2. **DESIRED LEARNING OUTCOMES.** Each student should:

a. Acquire an understanding of the nature of insurgency and the principles of coping with the threat.

b. Become familiar with the relationships and responsibilities of the military and civilian agencies involved in development and internal defense planning, from the national level down to the country team.

c. Acquire a clearer understanding of how national policies and interests are translated into actions at the country level in support of efforts by allied and friendly countries to move toward self-sustaining economic growth and social progress.

d. Acquire an understanding of the role of the Country Team in assisting the host country in its economic, political, and social development; the basic philosophy underlying the country team concept; and the organization of a "typical" country team.

3. **SETTING FOR THE EXERCISE.** A two-phase block of instruction in which the seminars are initially organized into committees with members presenting briefings and leading discussions on specific topics related to insurgency, problems of coping with the threat and U.S. objectives, policies, and capabilities in providing assistance to allied and friendly nations. Each seminar is then organized into a Country Team, and, under the leadership of the Ambassador, prepares and briefs the objectives section of a U.S. Mission's Country Analysis and Strategy Paper for the case study country.

4. **CONDUCT OF THE EXERCISE.** This is a student participatory problem supported by discussion periods, faculty and guest lectures, professional reading reports, films, and special seminars chaired by various government agency representatives from Washington.

a. Phase I (Discussion periods). Identifies the problems facing developing nations and sets the framework for the problem along with analyzing the U.S. policies, objectives and interests in this area.

82

b. Phase II (Country Team Exercise). Allows the student to apply the knowledge gained by playing the role of a country team member and developing input to the Country Analysis and Strategy Paper (CASP) for the case country studied.

c. The faculty and guest lectures, film, and book reports supplement the required readings used in the conduct of the block of instruction and provides the students with varying ideas/opinions to analyze and evaluate.

d. During the Country Team Exercise, U.S. agency representatives from Washington are invited to chair special seminars with the students. The AID, USIA, DIA, Peace Corps, State Department, and DOD representatives in attendance are normally desk officers of the case country being studied. Many have also served in the case country on previous assignments and can impart to the students firsthand, real-time information to assist them in their roles. The USIA representative conducts a seminar for the students playing the role of Information, Public Affairs, and Cultural Officers; DIA for the Defense Attachés; AID for the AID, Economic and Labor Attachés, etc. This exchange of information and ideas allows the students to return to their permanent seminars with a better understanding of the agency they represent and better prepared to participate in the Country Team Exercise.

5. The State Department representative at the College plays a key role in the management of this block of instruction and has been of great assistance in making the necessary contacts with the Washington agencies.

63
FACT SHEET

SUBJECT: Staff Action Papers

PURPOSE: Provide background information on AFSC instruction in preparation of Staff Actions.

1. UNIT OBJECTIVE. Each student should improve his reading comprehension, problem solving techniques, and skills in written and verbal expression to enhance his effectiveness as a staff officer and/or commander.

2. DESIRED LEARNING OUTCOMES. Each student should:

a. Display ability to discern and comprehend salient points of a furnished Situation Packet.

b. Display ability to reduce voluminous written material to a compact document emphasizing principle themes, factors and problem areas within time constraints of a real life situation.

c. Apply disciplined reasoning in approach to problem areas.

d. Increase speaking ability by delivery of a ten-minute oral summation of a given situation.

3. SETTING FOR THE EXERCISE. The Armed Forces Staff College curriculum includes a series of seven "short-fuze" writing exercises which require the student to reduce voluminous information in situation packets to concise action papers in a prescribed format. Each student plays the role of an action officer in a major joint or component headquarters who is suddenly confronted with a mass of unfamiliar material which requires him to digest, analyze, and communicate to his boss under "real-life" time constraints. Times allocated to the student to complete individual exercises range from 50 minutes to overnight. Selected students brief their solutions in seminar. Faculty Advisers evaluate and critique the student solutions in seminar. Staff Action Papers are scheduled during the latter half of the curriculum.

4. The exercise consists of the following situations:

a. "Establishing 10-month Course at Armed Forces Staff College". Student plays role of J-1 action officer. Chairman, JCS asks for the status of a proposal submitted by the Commandant, AFSC to lengthen course of study to 10 months. Action officer is asked by his boss to prepare background paper and talking paper for use by Director J-1 at forthcoming meeting. The student has overnight to prepare his papers and briefing.

b. "Commissary Situation in Vietnam". Student plays role of J-1 action officer. Action officer is asked by his boss to review a file of messages and letters between JCS, CINCPAC and MACV concerning congressional

inquiry on the commissary situation in Vietnam and to prepare a background paper and a talking paper for use by Director J-1 at a forthcoming meeting with JCS. The student has overnight to prepare his papers and briefing.

c. "Stationing of U.S. Troops in Germany". The student plays the role of a J-3 action officer whose boss asks for a background paper and a talking paper on German attitudes toward presence of U.S. troops in Germany. Each student develops his papers based on results of several surveys and polls available to him which were conducted by USIA and Rand Corporation. The student has overnight to prepare his papers and briefing.

d. "Evacuation of Pierre Ben Pilla". The student plays the role of an Operations Control Center Duty Officer who participates in fast-moving hot-line conversations involving the dispatch of a battalion of U.S. troops to a fictitious country to evacuate U.S. nationals and a key foreign official, Pierre Ben Pilla. From a nine-page script of these conversations, the student prepares a 200-word briefing memorandum summarizing the developments that took place during his shift as duty officer. The student has 50 minutes to prepare this memorandum.

e. "The All-Volunteer Force". The student plays the role of military action officer in the headquarters of a U.S. Government agency. This agency is known to be lukewarm on the issue of implementing an all-volunteer military force. The Action Officer is asked to prepare a background paper supporting a "pro" position on this issue. Each student develops his paper based on information contained in a series of articles about the All-Volunteer Force. The student has overnight to prepare his paper and briefing.

f. "Icelandic Defense Medal". The student plays the role of a J-1 Action Officer. A U.S. Navy enlisted man stationed in Keflavik submits through channels a well-documented letter recommending approval of the establishment of an Icelandic Defense Medal. The action officer must prepare a JCS memorandum to the Commander in Chief, Atlantic in response to the letter. The student has four hours to prepare his paper and briefing.

g. "Variable Housing Allowance". The student plays the role of an action officer in his own Service headquarters. The Joint Chiefs are to meet to consider the draft of a memorandum to the Secretary of Defense which contains a strong JCS endorsement of a Navy proposal for a Variable Housing Allowance. The action officer prepares a staff summary sheet for his Chief. Each student has one hour and 20 minutes to prepare his paper and briefing.

5. METHOD. An 18-hour exercise conducted in permanent seminar which consists of three elements:

- a. Seminar introduction
- b. Individual study and preparation

c. Presentations

6. In general, formats and procedures followed in the Joint Staff are used, although the students are provided illustrations of formats used in the Service staffs and unified commands.
7. This program has been enthusiastically received by the past two classes. The number of staff action exercises has been increased from two to five per class.

56

FACT SHEET

SUBJECT: Automatic Data Processing (ADP)

PURPOSE: Provide background information on ADP instruction at the AFSC.

1. **UNIT OBJECTIVE.** Each student should become familiar with the techniques and skill requirements of computer programming and be able to apply selected concepts of the BASIC (Beginners All Purpose Symbolic Instruction Code) programming language.

2. **DESIRED LEARNING OUTCOMES.** Each student should:

a. Understand the requirement for accurate problem definition and logic guidance.

b. Be able to develop BASIC computer language programs to:

(1) Solve uncomplicated mathematical problems.

(2) Exercise comparative or conditional (decision making) capabilities of the computer.

(3) Employ repetitive (iterative) processes.

3. **SETTING FOR THE EXERCISE.** The ADP course of instruction is as follows:

a. **Instructor Selection and Preparation:** To capitalize on extensive technical training in ADP possessed by 10-15 percent of the students, and to utilize most currently available experience and to keep instruction in small groups at seminar level (vice presentations in the auditorium), selected students are utilized as instructors. They are selected based upon previous ADP training and experience and interviews conducted shortly after arrival at the College. Emphasis is placed on demonstrated interest and instructional capability as well as technical background in making final selections. Once selected, the student instructors attend four to five hours of workshops during which they receive complete instructional packets, including lesson outlines and training aids. Computer time is made available to the student instructors to permit them to go through the exercises prior to class contact.

b. Utilization of student instructors has been completely satisfactory.

4. **CONDUCT OF THE EXERCISE.** The course is conducted as follows:

a. The course consists of two major parts; seminar instruction with laboratory periods, and an auditorium panel discussion.

67
b. Seminar instruction includes four hours of lecture and three laboratory periods of one hour each. The first hour of lecture covers such items as:

(1) Why the military commander/manager must be aware of the capabilities and limitations of the computer.

(2) A brief review of fundamentals and principles of ADP as covered in homework reading assignments and a programmed text.

The remaining three lecture hours are devoted to BASIC language and how it may be used to solve moderately complex problems. The student is led through a series of illustrative problems, each of which are flow charted to include a prepared computer program. Following each of the latter three lectures, the student applies his knowledge in a forty-minute "laboratory session" to input and debug programs written as homework assignments. During the laboratory sessions, the students work as 2-man teams using remote terminals connected to a time-sharing commercially owned Hewlett-Packard 2000A computer. During the lab sessions the students are assisted as needed by faculty and student instructors. The underlying theory being that the student, once capable of personally solving a problem using a computer, will develop a sound understanding of how the computer functions as well as its capabilities and limitations.

c. The second part of the ADP course is a three-hour "lecture-seminar-panel". During the first hour the students are briefed on some current computer applications in each of the military services via an auditorium lecture presented by selected service experts. During the second hour the students return to their seminars for a "free form" discussion of those aspects of ADP in which they are most interested. The final hour is held in the auditorium. During this period the students question the panel of experts. Questions range from ADP management philosophy to possible future applications.

5. EQUIPMENT, MATERIAL AND COSTS

a. Equipment. All computer instruction and support was accomplished through a commercial time-sharing concern located in Hampton, Virginia. Nine remote terminals acoustically coupled to the Hewlett-Packard 2000A computer are located in the AFSC. While the machine is relatively small, it is highly dependable, has an exceptionally rapid response time, and permits a high degree of conversational interaction between the student and computer. Though the core size limited the degree of sophistication which could be introduced into the programs, it did not pose problems which could not be resolved by efficient programming.

b. Material. In addition to AFSC designed and manufactured training aids, course material included a handbook on selected parts of the BASIC language, a problem work book, an Air Force published programmed text on

fundamentals of ADP and "A Software Primer for Managers" published by the Industrial College of the Armed Forces (ICAF).

c. Cost. Currently, the cost per student is \$49.00, which includes approximately seven hours of computer time.

6. Using knowledge and expertise developed during the ADP instruction, the student is able to clarify his understanding of the role of the computer by employing it to test and weigh alternative courses of action in later planning exercises, such as: in developing airlift/sealift requirements, force buildup and base development data, supply requirements, casualty estimating, and the structuring and testing of a contingency nuclear strike plan. However, this computer support does not replace the "essential to understanding type of stubby pencil work", since the student had gone through some manual calculations prior to employing the computer. Seeing first hand the speed and accuracy of the computer as compared with his manual calculations further reinforces his earlier acquired knowledge of ADP.

7. The ADP course, as presently conducted, provides a simplified and highly motivating introduction to automatic data processing. It highlights capabilities and limitations of the computer and its responsiveness to the needs of commanders and managers. For the novice, it provides a first real life application of ADP to problem solving and the decision making process. For the expert, it provides a challenging new dimension to real time programming communications.

UNITED STATES ARMY FIELD ARTILLERY SCHOOL

SUBJECT: Systems Engineering of the Field Artillery Officer Advanced Course (FAOAC)

1. References:

- a. CON Reg 350-100-1, Systems Engineering of Training (Course Design), 1 Feb 68.
- b. Annex Q, CON Reg 350-1, Army Schools Curriculum Administration and Training Policies, 15 Dec 69.
- c. Change 8, USAFAS Reg 1-1, Course Development/Revision Program, 1 Jan 70.

2. The purpose of the memorandum is to provide guidance for the systems engineering of the FAOAC.

3. The purpose of the course will be to prepare Field Artillery officers for command and staff duties at battalion through division artillery or comparable levels in both divisional and non-divisional field artillery units, with emphasis on the exercise of command at battalion level; and to prepare the graduate for service on a division staff as an assistant to a principal staff officer.

4. The course will be developed using the following philosophical approach:

a. The course should be as intellectually challenging as we can make it. Orient instruction toward the more advanced students and provide slower students the opportunity to receive extra instruction.

b. Emphasis should be on logical thinking and on principles and concepts rather than on rote memory. Teaching should be realistic, encompassing field artillery in a variety of environments and intensities of combat, but with emphasis on mid-intensity conflicts.

c. Consider a general tightening of technical military instruction, whereby approximately two-thirds of the course is parochial and approximately one-third is "brain stretching"--devoted to such subjects as military history, unit and installation management, and worldwide contingency planning. Communications by the oral and written word should permeate the more intellectual phase of the course.

90

d. Move toward mission type assignments in the FAOAC wherein we place the requirement on the individual and allow him to budget his time; to think; to generate new ideas, new approaches, and new solutions.

e. As the course is developed, look for areas where more night training can be incorporated and consider placing the young captains and majors in better positions to do things, such as writing an operations order. The Advanced Course is a management course and, as such, hands-on training should be conducted only when necessary.

f. In almost everything taught in the way of technical artillery or parochial military, the purpose should be to provide the officer the basis for leading, instructing, supervising, inspecting and, in general, commanding as a post graduate commander or staff officer at battalion level or higher. Assume the officer knows the fundamentals of technical artillery, then give him an in-depth analysis of the subject so that he will fully understand all the ramifications and be better prepared to function at the higher levels of responsibility. Be sure instruction goes beyond just the field manual and presents all the latest information.

g. Pull together our instruction concerning targeting with a view toward insuring that our officers understand how all the sources of target information work, including photographs, and how to exploit these sources.

h. Place more emphasis on general staff instruction as a result of reduced division level instruction being given by C&GSC.

i. Insure that students understand the logistics system and a commander's responsibilities for procurement of supplies. Vietnam experiences have been such that they do not worry about where their supplies come from.

j. Although the ultimate length of the course will be determined by the systems engineering process, a reduction in the overall course length is desirable by elimination of blocks of instruction common to FAOBC, such as FADAC. For those students in need of refresher study, consider the development of individualized study packets with which the student accomplishes his study on an individual basis. For the longer range, consider the passing of selected subcourses a prerequisite for attending the FAOAC.

k. For those students whose scores on diagnostic tests evidence mastery in certain areas, consider excusing such students from applicable core curriculum instruction and the substitution of activities which allow for participation in solving problems, outside the academic realm, which are currently facing the School or the Army as a whole. Also consider using these students as assistant instructors in the Advanced Course or other USAFAS courses. This program would be in addition to the established electives program.

41

1. Electives should be reexamined to insure that they are of value to the Army and, in particular, the Field Artillery. Where possible, the electives should dovetail those offered at C&GSC. Additionally, consider utilizing the capabilities of the Education Center for electives.

m. Use of a single standard method and medium of instruction will not be appropriate for all subjects in the course; therefore, where feasible, consider the use of combinations of the following methods and media:

- (1) Case study (more emphasis is needed in this area).
- (2) Computer Assisted Instruction (CAI).
- (3) CPX's.
- (4) FTX's.
- (5) Role playing.
- (6) Seminar.
- (7) Simulation and games (management and war games).
- (8) Television.

5. In summary, all of us must use our collective imaginations on the development of an Advanced Course which is both technically and intellectually a broadening and challenging post graduate course: "Of the Best, By the Best, and For the Best."

92

FACT SHEET

THE REDESIGNED CHEMICAL OFFICER ADVANCED COURSE

Beginning with the class which opened in September 1971, the Chemical Officer Advanced Course has undergone significant change. The course is now designed to encourage maximum student participation, response, and growth by helping him to learn to cope with realistic and relevant situations in an atmosphere that allows optimum latitude for the exercise of initiative. To prepare the graduate for continuing growth, much greater emphasis has been placed on the fundamentals: the communicative, human relations, quantitative/computations, and conceptual/problem-solving skills.

The curriculum includes the essential professional and technical knowledge; that is, principles, doctrine, concepts, techniques, and procedures. What has changed is the focus or orientation of the course, the curriculum, and the faculty. No longer is the instruction theory- and instructor-centered. It is now learning- and student-centered. The traditional philosophy that governed the selection and teaching of explicit material, followed by the use of practical exercises that directed the student toward narrow, almost specified, solutions has been discontinued. It has been replaced with a philosophy that requires the faculty to respond to the student's professional needs by finding, or designing, realistic and relevant situations that he can envision himself facing as a chemical officer in the real world. The faculty gives the student only the minimal instruction that is pertinent to the situation. Great emphasis is placed on the student identifying the problems inherent in the situations through his own participation and activity, his learning by doing, individual effort, peer instruction, and self-pacing. What might be called the "whole-school concept" is employed. The student calls upon the staff and faculty, his classmates, library facilities, support activities (to include the Post staff and facilities), and whatever outside sources he may need. He is given both time and reason to utilize them. The lecture and conference are rare (except for certain specific technical subjects such as Prefix 5); the seminar is more common, but is kept to a minimum. Attendance at these is voluntary. The vehicles used are the various command levels of the Army: company/battalion, brigade, division, installation (CONUS Base) and higher headquarters (to include high level logistics). These levels (at each of which the class spends five or six consecutive weeks) allow a design of the learning process which progresses from attacking relatively simple, specified problems to more highly complex situations requiring identification of problems, followed by analysis and development of workable solutions. It should be understood that these levels are merely vehicles in the learning process and are not designed to emphasize the organizations selected. They provide a device for integrating learning in a logical progression, while at the same time illustrating problems and procedures similar to those that may be encountered in later assignments.

13
Realism and relevance depend on the careful selection of problems and situations. As far as practicable, these have been extracted from current records, documents, and files. Some of the actual reply or response documents are available. School solutions have largely been totally eliminated, in the the overriding objective is not a solution, per se, but to develop the student's ability to cope with problems and to arrive at logical, sound approaches to solutions, recommendations, or decisions.

The class is organized into small work groups, membership of which is changed at each level. The class meets as a whole only occasionally for common instruction. A faculty consultant (normally an experienced major) is available to each group at all times to answer questions, provide guidance, closely observe individual and group action and interaction, and evaluate performance.

Evaluation of the student is mainly subjective, based on performance. The student is rated on what he can do, and how well he does it--not on what he knows as determined by objective tests of recall or recognition. His performance in the course is evaluated on the basis of his written and oral presentation of solutions, as well as the work, logic, and breadth and depth of overall understanding that have gone into these solutions. The concept of the revised system is essentially macro-evaluation as opposed to the micro-evaluation common to objective-type examinations. Each student performance is rated on a pass-fail basis, with provision for special recognition of distinguished performance.

SUBJECT: General Educational Approach, USWAC School

PURPOSE: To provide information regarding the general educational approach of the USWAC School, and the considerations on which it is based, i.e. the role of WAC officers in the Army, the diversified nature of the positions to which WAC officers are assigned, and the generally limited opportunities the majority of WAC officers will have for attendance at C&GSC and the senior service colleges.

FACTS

1. The USWAC School attempts to train both its basic and advanced course officer students to serve in branch material staff and troop positions and branch immaterial staff positions commensurate with their grades and levels of experience. Currently, there are 261 WAC branch material officer positions in the Army's manpower structure, which is 26% of the total WAC officer strength. The majority of these are in troop units. Only 13 of them are field grade command positions.

2. Because of the small number of authorized WAC branch material command, staff and troop positions, neither the WAC basic nor advanced course is structured as a branch material course. The curriculum is designed to give students the general knowledge of Army operations, regulations, policies and procedures required to prepare them to function effectively in a multiplicity of staff assignments at all levels of command.

3. Due to the extremely limited quotas allocated to WAC Branch for the training of WAC officers at C&GSC (4 per year), the AFSC (2 every three years) and the AWC (1 each year) it is recognized that the advanced course will be the highest level military school attended by the vast majority of WAC officers. Therefore, every effort is made to provide as substantive and comprehensive a course as possible.

4. The general academic achievement of most WAC officer students is very high. All direct commission officers must have baccalaureate degrees; OCS students must have had a minimum of two years of college. A number of officers in each basic and advanced course have graduate degrees. Many have graduated from their colleges or universities with honors. (There are 16 students with master's degrees; two who have almost completed their doctorates, and two Phi Beta Kappas in the current WOBC class.)

95
24 September 1971

FACT SHEET

SUBJECT: The Integrated Instruction Program

PREPARING AGENCY: USAADS (Contact point: LTC Brown - AUTOVON 978-4880)

REFERENCES: Programs of Instruction for the Air Defense Artillery Officer Basic Course, 2-44-C20, and Air Defense Artillery Officer Advanced Course, 2-44-C22.

DISCUSSION:

1. **Background.** Prior to April 1971, subjects in the Officer Basic and Advanced courses were presented by block method. For example, students would study only air defense tactics until the entire subject has been completed. Each subject was taught the same way. Though this block method was easy to administer, it often led to redundancy and did not allow the student to correlate related subjects.
2. **Purpose.** To provide a logical and effective learning progression in each course, so the students can understand and apply various principles and techniques as they are presented and learned.
3. **Description.** Both the Basic and Advanced courses are phased to interrelate instruction in weapons, tactics and general subjects. The program employs small group discussion, seminar presentations, and maximum exposure to guest speakers to foster a free exchange of ideas between students and instructors and provide a better understanding and appreciation of actual unit situations. The specific method employed to accomplish the purpose is explained in inclosure 1 for the Basic Course and inclosure 2 for the Advanced Course.

CONCLUSION: The integrated instruction has improved learning and increased the students' motivation and interest. This method is being expanded to other courses at the present time.

2 Incl
as

DESIRED OBJECTIVE FOR BASIC COURSE

The Basic Course (C20) is taught in five phases:

a. Orientation Phase: To provide the student with a general knowledge of the US Army environment, including discussions on officer responsibilities, benefits, personal affairs, organization of US Army units, orientation on air defense weapons systems, US Air Force and Marine Corps orientation, and the Communist threat.

b. Basic Phase: To provide the student with the knowledge required to perform basic military duties within a unit. Instruction is presented on military leadership, military justice, unit administration, mess and supply, communications, NBC defense, and small arms.

c. Advanced Phase: To provide the student with the capability to perform more advanced military duties within a unit. Included are maintenance management, command and staff procedures, air defense operations, field artillery and combined arms operations, and unconventional warfare.

d. Redeye Phase: To provide the student with the knowledge necessary to perform as a battalion Redeye system controller. Included is instruction on Redeye command and control, deployment, section operations, and firing practice using a moving target simulator.

e. Applicatory Phase: A field training exercise that will permit the student to apply the knowledge gained in the previous phases. The scope includes day and night land navigation, ambush and counter ambush techniques, observed fire procedures, patrolling, squad and platoon offensive and defensive operations. Integrated throughout will be leadership, ranger type training, psychological warfare, and field sanitation.

f. In order to eliminate redundancy of training, the basic course student is pretested to determine his entry knowledge in the curriculum's general subject's area. Attaining a qualifying score on the pretest allows him to select elective studies for a like period of curriculum time. Elective subjects offered at present are: Introduction to Electronics; Introduction to Automatic Data Processing; individual research projects in Insurgent Warfare.

GM DESIRED OBJECTIVE FOR ADVANCED COURSE

The Advanced Course (C22) is taught in five phases.

- a. Orientation Phase: To provide a course orientation and discuss general subjects such as effective listening, speaking, and writing, research techniques, leadership and management techniques.
- b. Modern Weapons Phase: To introduce the student to nuclear, biological and chemical weapons effects, employment and defense.
- c. Tactics Phase: To integrate air defense weapons systems, division staff planning, air defense operations and division tactics.
- d. Weapons Phase: To provide an in-depth study of the maintenance, inspection, sequence of operations, emergency and special procedures of all air defense weapons systems.
- e. General Subjects Phase: To explore pertinent military and contemporary subjects, general in nature, which do not logically fit in the other phases.
- f. In addition to the five phases of military instruction contained in the course, the advanced course student must participate in an elective program to enhance his professional competence. The course curriculum requires that each student participate in both the resident military elective and college elective programs. Each student must attend two military electives and one undergraduate or graduate college elective. Based on demonstrated ability, selected students are afforded the opportunity to enroll in additional college electives.

98

**CURRICULA DIVISION
DIRECTOR OF INSTRUCTION
US ARMY ARMOR SCHOOL**

PURPOSE

To provide information regarding the program for reducing the work week in the advanced course; use of integrated, participating, and self-paced instruction; instructs work-load and allocation of effort; student reaction; and overall assessment.

FACTS

1. CONARC Regulation 350-1 reflects courses of 20 weeks or more will schedule a minimum of 30 academic hours per week. The current Armor Officer Advanced Course (AOAC) POI contains 31 hours per week, outlined as follows:

A Typical AOAC Academic Week (2 Variations)

Variation 1

DAY	NR OF HOURS	MATERIAL PRESENTED
MON	7	Core Subjects (3); Electives (4)
TUE	6	Core Subjects (3 + 3)
WED	6	Guest Speaker (2); Electives (4)
THUR	6	Core Subjects (3 + 3)
FRI	6	Core Subjects (3 + 3)
	31 Academic Hours	

Variation 2

MON	6	Core Subjects (3 + 3)
TUE	7	Core Subjects (3); Electives (4)
WED	5	Guest Speaker (2); Core Subjects (3)
THUR	7	Core Subjects (3); Electives (4)
FRI	6	Core Subjects (3 + 3)
	31 Academic Hours	

Number in () indicates instructional time.

2. The Armor School feels that the 31 hour week is of sufficient duration to satisfy the academic requirements of the POI and allow the student enough latitude to pursue

the professional enrichment programs which are of an interest to him. In addition, there is sufficient flexibility in the current schedule to program add-on instruction to provide the student with the latest up-date information from the field. Outside study assignments are kept to a reasonable minimum so as to allow the student the opportunity to participate in the baccalaureate and advanced degree programs offered by the University of Kentucky here at Fort Knox. Students found proficient in selected subjects as a result of inventory testing are encouraged to participate in the Advanced Studies Program. A detailed discussion of this program is contained in an information booklet, at Inclosure 1*. The AOAC POI will undergo an extensive and comprehensive review beginning 1 October 1971. It is anticipated that some very innovative and imaginative changes will be incorporated into the POI as a result of this review, and that the length of the academic week will remain virtually unchanged.

3. Integrated and participating instruction is included in the current POI to a limited degree. It is envisioned that after the POI review these methods of instruction will be used to a greater degree. Self-paced instruction lends itself to the Armor School electives program and is used wherever possible throughout his program.

4. With the reduction of the AOAC academic week there was not a commensurate reduction in the instructor work load. The instructors are involved in monitoring the Advanced Studies Program, teaching in the electives program and at the Community College. However, these additional requirements have not caused a degradation of the AOAC instruction. In the event the Service Schools return to a once a year advanced class, the instructors will be afforded a greater opportunity to review the methods of instruction and material for appropriate inclusion in the succeeding classes.

5. Thus far student reaction to the reduction of the academic week has been favorable. The young officer of today is extremely academically oriented and is continually seeking to further himself professionally. Therefore, it is incumbent on the Armor School to provide a most stimulating and challenging advanced course for the student, while offering him the opportunity to pursue parallel education on the civilian community. Many of the recent innovations which have been incorporated into the advanced course have been as a result of student suggestion.

6. The advanced course is constantly being assessed and evaluated with the idea of improving the educational material to insure that the material being offered is, in fact, meeting the needs of the leader of tomorrow.

*Inclosure removed for sake of brevity

160

24 September 1971

FACT SHEET

SUBJECT: The Air Defense Seminar Program in the Advanced Course

PREPARING AGENCY: USAADS (Contact Point: LTC LaTour, AUTOVON 978-3517)

REFERENCE: Program of Instruction, 2-44-C22, Air Defense Artillery Officer Advanced Course

DISCUSSION:

1. **Background.** The seminar program replaces a program in which students selected a military subject of a general nature and submitted a treatise based on individual research of the subject. Papers were not of a problem solving nature, were mundane and in most instances resulted in the submission of historical reviews of areas of interest which were already well documented and from which conclusions had long previously been drawn. Briefly, the previous program had evolved into a routine academic requirement which failed to challenge the student and served merely to produce a writing grade for each student.

2. **Purpose.** The purpose of the Seminar Program is to challenge the student by involving him in existing air defense problems, develop his ability to conduct research as a member of a study group and to increase his awareness of the various agencies involved in the formulating and solving of air defense problems. Additionally, this program gives the student an opportunity for oral expression by presenting his problem and defending its solution in a formal briefing before a knowledgeable and interested audience. The audience is composed of the entire class and invited guests representing the Commandant, the Office of Doctrine, Development, Literature and Plans and other agencies at the Air Defense Center and School.

3. **Description.** Problem statements are solicited periodically from all activities and agencies of USAADS and USAADCEN to include CDC and the Air Defense Board. The class is divided into four or five men study groups. Study groups are selected by the staff and faculty to blend a favorable distribution of experience and expertise. The senior officer of each group acts as group leader. Each group selects a problem from among those suggested or may formulate and submit for approval a problem of their own choosing.

Under the direction of the group leader the group performs research, formulates a solution and prepares a formal presentation of their findings. Training aids such as 35mm slides, tape recordings, overhead projectors and working models are available and their use is encouraged. During the 14-15th week of residency the study groups present their formal briefings. Following a 20-minute presentation the students defend their solution during an open question period. Group presentations are graded by a five member faculty committee as either above average, average, or below average. The seminar program has proven to be a dynamic innovation and has been enthusiastically received throughout the School and agencies at Fort Bliss. Several student solutions to problems are being followed up by the air defense community and will appear in official documents as changes to existing doctrine.

CONCLUSION: This program challenges student ability and imagination by requiring his participation in group research aimed at solving current management and technical problems in the ADA area of interest. Exposure to real problems, combined with the opportunity to practice modern problem solving techniques, has contributed significantly to the educational advancement of the student.

162

FACT SHEET

- 1. SUBJECT:** Base Development Planning Exercise (EXERCISE SANDCASTLE).
- 2. SOURCE:** U. S. Army Ordnance Center and School.
- 3. PURPOSE:** To provide sufficient information about subject exercise to permit other service schools to initiate similar instruction.
- 4. BACKGROUND:**
 - a. SANDCASTLE is an exercise which satisfies the requirements established by CON Reg 350-1, Annex Q, App III, Para 6, Base Development Planning (extract at Tab A).
 - b. The current thesis of the exercise is that an off-shore logistical base must be established in the Pacific theater as a replacement for the facilities on Okinawa. Selection of an appropriate site involved numerous judgments. An outline of these considerations is provided at Tab B.*
 - c. SANDCASTLE is, by design, much less structured than the typical practical exercise.
 - (1) Considerable freedom of action is given the students for practical reasons. They are obliged to conduct research in several different libraries and to consult with various faculty members and post activities (e.g., the Facilities Engineering Directorate), and hence cannot be confined to the classroom. By nature, base development planning requires voluminous calculations on a variety of interdependent subjects. It is helpful to provide both work cubicles for small groups and a room large enough for the entire group to assemble for review, coordination, and critique. SANDCASTLE is scheduled late in the course because it is an application of virtually all subjects taught. The undirected nature of the exercise is a change of pace which has beneficial impact on student morale. There is no "school solution" to this exercise. It is not difficult to develop a good "feel" for correct ranges of quantitative data and a checklist of necessary elements, but there are so many variables involved that the range of feasible solutions is virtually infinite.
 - (2) The hypothetical force structure to be supported is changed periodically to discourage the transfer of information from one class to another, and the missions to be accomplished on the base are revised to accommodate developments in logistical doctrine. Representative

parameters might be Air Force, Navy, and Marine Corps units in the background; ten days of supply (in active theater stocks) for a type field army which is not located on the vicinity of the base; a division with basic loads on the base in a quick-reaction role; and a corps' equipment on the base in pre-stock for rapid issue to deploying troops.

5. DISCUSSION:

a. SANDCASTLE occupies twenty-four academic hours. It is deceptively simple to initiate; a brief introductory address (Tab C)* precedes issue of a base development planning directive (Tab D);^{*} an area study (Tab E);^{*} and a map. From that point on, the students are free to organize themselves as they see fit, analyze the mission and calculate data, and coordinate the distillation of a workable plan. Faculty members stand by to provide guidance, respond to specific questions, and critique the final plan.

b. At first, the students are frustrated by the absence of specific guidance. This is useful, however, because the planning method, not the specifics of the problem, is the lesson to be conveyed. Having to analyze the planning task in order to organize themselves to meet the requirement helps to convey this lesson. Later, the students begin to discover the gaps, conflicts, and obsolescence of the data available from standard references, such as FM 101-10-1, bringing home the point that these data are only guides to the planner. Finally, it is commonplace to discover lapses in assumptions or coordination which cause recalculation; for example, will this be an accompanied tour, and, if so, for whom? Then, what additional support requirements will be imposed by dependents if they are present; if they are not, what compensations will be made? The instructors who proctor the exercise must necessarily be broadly versed in logistics, flexible, and familiar with the locale used as the site for the base. The latter requirement does not require first-hand knowledge, but thorough map study, and, if possible, discussion with individuals who have served on the ground, are very desirable. In the course of play, the instructors are called upon to provide better-educated guesses than the students, and this requires thorough knowledge of the references and the site of the base.

6. CONCLUSION: SANDCASTLE is both interesting and challenging to students and faculty. It accomplishes the training requirement and has evoked favorable comment; typically, students state that they wish there were sufficient time to develop a finished product. They also develop a healthy respect for base development planners and their problems.

7. NOTE: To obtain further, more specific information, contact Ammunition and Services Branch, Logistics Division, Command and Staff Training Department, USAOC&S, APG, MD; telephone extension 3011/4457.

*Inclosures removed for sake of brevity

FACT SHEET

SUBJECT: Adjutant General Exercise (AGX)

PURPOSE: To explain the procedures utilized by USAAGS in the Adjutant General Exercises.

FACTS.

1. The Adjutant General Exercise is a practical exercise utilized in both Basic and Advanced Officer Classes as the culmination of instruction.
2. The problems are based on real life situations an AG officer would face in the field. The problems were developed from actual experiences of individuals assigned to the School or from students who related their experiences, and cover all areas of AG responsibility. They are written in such a manner as to require staff coordination for solving. Field telephones are available in each group area to permit coordination with another staff officer, the role of which is played by a Controller in each subject area. Expected responses are built into the problems; however, if the initial response is incorrect or incomplete, Controllers insert into play information designed to bring out specific teaching points.
3. Separate exercises are conducted for the basic and advanced classes, however, their scenario is similar. The exercise is conducted the last week of the courses to enable the students to apply all the lessons learned from previous instruction, thereby serving as an excellent supplement to the regular classroom instruction. The situation is set in the Division AG shop of the mythical 12th Infantry Division. The exercise is run in 2 phases for basic classes and 1 phase for advanced classes. In basic classes - Phase 1 - the students are divided into groups with the senior individual playing the role of the Division AG with other students playing various roles such as the Chief, PSD, etc. Phase II - basic classes - the students are all members of Personnel Services Division (Sr individual, Chief, PSD, others as action officers). In advanced classes, the setting for the exercise is the same as phase 1 in the basic classes.

COMMAND AND STAFF DEPARTMENT
US ARMY ARMOR SCHOOL

PURPOSE

To outline the two-sided Brigade Map Maneuver Exercise that is administered to Armor Officer Advanced Course students.

FACTS

1. **Brief of unit:** The Brigade Map Maneuver is presented 3 1/2 days consecutively and is intended to fulfill the following objectives:

a. Students demonstrate the ability to perform the duties of a commander or staff officer of Armor, Armored Cavalry, Mechanized Infantry, or Air Cavalry units in the execution of tactical missions in a nuclear or nonnuclear environment.

b. Students demonstrate the ability to develop and present appropriate estimates as either a commander or staff officer at brigade or battalion level.

c. Students demonstrate the ability to develop, produce, issue, and execute combat orders, operation plans, contingency plans, and fragmentary orders as either a commander or staff officer at brigade or battalion level.

d. Students demonstrate the ability to organize and operate a tactical headquarters at the brigade or battalion level.

2. **Exercise Scenario:** Approximately one week prior to the first day of the exercise, television and radio tapes are presented to the students (inserted during scheduled classes) as a general setting for a conventional war being waged in Continental United States. A division order precipitates actual play, and the two opposing brigades (one mechanized infantry and one armor) are maneuvered into a meeting engagement in the general vicinity of Fort Knox. This initial order from division controllers is the only "controlled" input, while the remainder of the problem is "free-play," i. e., no faculty direction and no "school solutions." Subsequent orders for offensive or defensive operations are based solely on situations as developed by the students. Casualty/damage assessments are computed by controller personnel utilizing FM 105-5, with in-house modifications. Faculty members assist students and resolve problems as they may arise; but otherwise the students have freedom of judgement as to tactical play, administrative breaks, and termination of phases.

3. **Phases:** The exercise is divided into four phases:

- a. Phase I: Orientation and preparation for the exercise. This phase includes briefings for faculty controllers and student players/controllers.
- b. Phase II: Conduct of offensive operations. Both brigades prepare estimates and implement their derived orders for the offense.
- c. Phase III: Conduct of defensive operations, to include a retrograde movement. Situations may vary, but one brigade is forced to assume a defensive posture in opposing a relatively stronger force. This defensive phase will, desirably, shift from one side to the other.
- d. Phase IV: Critique. Participants are critiqued by the Chief Controller and faculty as well as fellow students.

4. Organization: Inclosure 1*

5. Brigade Map Maneuver Advance Sheet at Inclosure 2.*

*Inclosures removed for sake of brevity

108

COMMAND AND STAFF DEPARTMENT
US ARMY ARMOR SCHOOL

PURPOSE

To outline the three-sided Brigade Stability Map Maneuver administered to Armor Officer Advanced Course students.

FACTS

1. **Brief of Unit:** This is a three-sided exercise where students represent commander/staff positions of either US, Host Country, or guerrilla forces. Lesson objectives include the student's ability to organize and employ Armor, Armored Cavalry, Air Cavalry, and Mechanized Infantry forces in strike and consolidation operations in a counter-guerrilla environment.
2. **Exercise Scenario:** This exercise is conducted over a two-day period and initiated by a prepared OPORD, which requires plans for conducting strike operations in a given AO. The setting for the exercise is Korea, using the present time frame. Controller input is then restricted to arbitration of student problems and monitoring of the problem play. Casualty and damage assessment is computed by utilizing FM 105-5, with in-house modifications. No "school solutions" are offered nor is "canned" input used. The students are allowed "free-play" to implement stability operations in the situation provided.
3. **Phases:** This exercise is divided into four phases:
 - a. **Phase I:** Preclass staff preparation. During this phase students prepare briefings to be presented during Phase II.
 - b. **Phase II:** Orientation and preparation of respective areas. A briefing is conducted for all student participants and faculty controllers/monitors. Task Force and province staffs prepare orders to implement an OPORD issued by faculty controllers.
 - c. **Phase III:** Strike operations. Brigade, province and task forces conduct strike operations in assigned AO's.
 - d. **Phase IV:** Consolidation operations. Following the implementation of orders for consolidation operations the exercise is terminated and a critique is conducted for all participants.

109
4. Organization: Inclosure 1*

5. Brigade Stability Map Maneuver Advance Sheet at Inclosure 2.*

*Inclosures removed for sake of brevity

110
24 September 1971

FACT SHEET

SUBJECT: Staff Study Program in the Advanced Course

PREPARING AGENCY: USAADS (Contact point: LTC Thomson, AUTOVON 978-4908)

REFERENCE: Program of Instruction for 2-44-C22, Air Defense Artillery Advanced Course

DISCUSSION:

1. Background. Prior to the current staff study program, the Advanced Course student wrote a research paper on any military related subject of his choice. The student presented a briefing on his subject and was evaluated on his oral and written expression ability.
2. Purpose: To provide students with practical experience in problem solving, individual research and study method, and produce a paper to determine individual written and oral expression aptitude.
3. Description. Currently, the subject material for the studies is obtained from units located at Fort Bliss rather than putting the burden of subject selection on the student. The problem areas are often general in nature and the student is then required to extract the basic problem. Often, more than one specific problem is derived from a general area and in those cases the student selects the problem he desires to study. Class time is scheduled during this program so that students might visit the units concerned in order to research their problem. At the midpoint of the phase, (approximately 15 days) the student submits a written progress report. He identifies his problem for study, actions completed and actions to follow. Approximately 30 days from the day the problem areas are presented, the student submits two copies of his study for evaluation. He also presents a briefing to the unit concerned and to oral expression graders.

CONCLUSION: The problems are real and equate with what the student will encounter after graduation. The students have a high degree of interest as they are working with actual units. The time element is as realistic as possible with classes running concurrently. This program forms a firm basis for evaluating the students on both his oral presentations and written efforts.

FACT SHEET

SUBJECT: "Intimate PSYOP" and Other Measures to Instill PSYOP Awareness

PURPOSE: To provide information on measures USAIMA is taking to promote "intimate PSYOP" and to instill PSYOP awareness Army-wide.

FACTS: Heretofore, psychological factors served as a relatively insignificant adjunct to military activities. The commander all too often either ignored the psychological impact of his operations or introduced PSYOP as a post-operation function with the view toward hopefully mending "psychological fences" after they had been indiscriminately "broken." Experience in Vietnam reaffirmed the fact that the psychological impact of tactical operations on friendly, neutral, and enemy audiences superseded, in many cases, the short-run gains achieved by tactical operations. Today, the military commander can no longer ignore the psychological impact of his politico-military activities in limited war or hot war environments. With this view in mind, USAIMA embarked upon a continuing effort to promote intimate PSYOP and to ultimately instill PSYOP awareness ARMY-wide.

DISCUSSION:

1. The intimate PSYOP concept--every soldier is a psy-operator as opposed to relegating PSYOP activities to the PSYOP community--has been integrated into resident and nonresident instruction, particularly in common subject instructional materials prepared by the PSYOP School and used by other CONARC schools Army-wide. In addition, it is receiving special emphasis in the current revision of FM 33-5, PSYOP Techniques and Procedures. "PSYOP of the deed"--based on the premise that every military action has psychological implications--has also been integrated into resident and nonresident instruction.
2. USAIMA actions to improve PSYOP awareness Army-wide have been directed along several dimensions. At the highest level, and through the informal efforts of USAIMA as well as by other military agencies, JCS drafted a comprehensive publication which (a) delineates PSYOP responsibility between the service components, (b) directs commanders to evaluate the PSYOP impact of all politico-military activities prior to their implementation, and (c) requires integration of PSYOP in all planning at the conceptual stage rather than after the completion of plans. As field manuals are developed and forwarded to USAIMA for comment, input is provided to emphasize, as necessary, the importance of considering the psychological

FACT SHEET (continued)

SUBJECT: "Intimate PSYOP" and Other Measures to Instill PSYOP Awareness

impact of the individual soldier's behavior and of considering the long-range psychological implications of all military actions. USAIMA initiated the development of a training film and directly assisted Army Pictorial Service in its research, writing, and production which will further promote intimate PSYOP as well as PSYOP awareness upon its completion and distribution to the field.

43
FACT SHEET

SUBJECT: Exercise GOBBLER WOODS

PURPOSE: To provide a summary of facts pertaining to Exercise GOBBLER WOODS

FACTS:

1. GOBBLER WOODS is conducted within the final three weeks of the Special Forces Officer and the Psychological Operations (PSYOP) Unit Officer Courses of the Institute for Military Assistance. The purpose of the exercise is to provide students of the Institute an opportunity to practice field application of previous classroom instruction.
2. The average student population per exercise is 245; 165 from the Special Forces Officer Course and 80 from the Psychological Operations Unit Officer Course.
3. The exercise is conducted in 5 North Carolina counties: ANSON, MONTGOMERY, MOORE, RANDOLPH and RICHMOND, encompassing an area of 1 1/2 million acres.
4. Support for the exercise is provided by various agencies-- USAJFKCENMA (to include the newly acquired 95th Civil Affairs Group), XVIII Airborne Corps, 82d Airborne Division, 12th Support Brigade, and other post units. In addition, the US Air Force Special Operations Force from Eglin AFB, Florida, provides valuable support as part of its training to support unconventional warfare operations. The support strength including maneuver elements varies from a low of 1,300 to a high of 4,000 troops. The variance is dependent upon the ability of the 82d Abn Division to participate. Over 150 vehicles are utilized during the course of the exercise.
5. The exercise is conducted 3 times annually (September, December and May) for a duration of 10 days each at an annual cost of \$82,000. An average breakout by exercise allows \$8,250 for maneuver rights and damage restoration, and \$19,420 for supplies and equipment (rations, transportation, POL, communications, utilities and rents).

DISCUSSION:

1. The exercise began in 1961 as Exercise WATER MOCCASIN at Camp Stewart, Georgia. During 1963 it was moved to its present location and renamed Exercise CHEROKEE TRAIL. In March 1968, the exercise was given its present name. A total of 4 WATER MOCCASIN and 14 CHEROKEE TRAIL exercises were conducted and 14 GOBBLER WOODS exercises have been conducted.

FACT SHEET (continued)

SUBJECT: Exercise GOBBLER WOODS

2. The exercise scenario establishes the maneuver area as the mythical country of Pineland which is bordered by the countries of Sandalia and Satilla. The exercise begins when Satillian Special Forces (SFOC students) infiltrate Pineland and collaborate with a guerrilla force and local civilians who are attempting to overthrow the government. The PSYOP students, by organizing and conducting campaigns designed to gain support for the government and the Pineland Army, support the established regime.
3. A vital part of each exercise is the part played by at least 5,000 civilians. These volunteer participants support both sides with enthusiasm. It is not uncommon to find an individual who works with the government during the day and then uses the knowledge that night as a guerrilla and vice versa. Noteworthy is the loyalty of the populace to the United States and their support for the military.
4. Coordination and administrative control of the exercise are handled by the FTX Branch, Office of the Director of Instruction, USAIMA. The functions of the FTX Branch include the coordination of the planning support required for GOBBLER WOODS FTX's, preparation of recommended budgets for each exercise, monitoring of GOBBLER WOODS exercise expenditures to insure compliance with approved budgets, coordination with civilian landowners and agencies as required in the exercise area and monitoring and coordination of the activities of USAIMA claims officers appointed to investigate claims of damage to personnel and/or property as a result of GOBBLER WOODS FTX's.
5. The Exercise Control Center (ECC) and the Support Operations Center (SOC) are located at Star, North Carolina. Montgomery County Airport, located adjacent to the Star complex, serves as the operations base for the Air Force and the USAJFKCENMA Aviation Detachment. Five Province Area Coordination Centers are located throughout the maneuver area in the following locations: Morven City Hall and Agriculture Building at Morven Elementary School in Morven, N. C. (Anson County); two story building (commercial) in Ellerbe, N. C. (Richmond County); the American Legion Hall in Troy, N. C. (Montgomery County); the Ashe-Rand Rescue Service Building in Asheboro, N. C. (Randolph County); and, the Moore County Rescue Squad Unit #3 Building in Carthage, N. C. (Moore County).

FACT SHEET (continued)

SUBJECT: Exercise GOBBLER WOODS

6. The North Carolina Real Estate Office, Savannah District, Corps of Engineers (Cary, N. C.) is tasked with the responsibility of investigating and processing all claims involving property damage to land acquired for maneuver purposes. Investigation of claims involving damage to persons, equipment, buildings or areas not covered by maneuver permits are processed by the USAJFKCENMA and USAIMA claims officers.

The North Carolina Real Estate Office is also charged with the responsibility of attaining maneuver rights and restoration of maneuver damage within the exercise area. During FY 70, \$33,000 was transferred by the USAIMA to the real estate office for that purpose. During FY 71, only \$20,000 was transferred for this purpose based on actual cost incurred during FY 70.

7. During the course of the 14 GOBBLER WOODS exercises, a total of 3,016 students has participated in the exercise. Of this total, 2,026 were students of the Special Forces Officer Course and 990 were students of the Psychological Operations Unit Officer Course. Of the total (3,016) 384 have been Allied students; the largest majority were from Thailand and the Republic of Vietnam, represented by 115 and 101 student officers respectively.

8. Between Exercise GOBBLER WOODS VII (1-70) (September, 1969) and Exercise GOBBLER WOODS VIII (2-70) (December, 1969), the U.S. Army Special Warfare School was renamed to become the U.S. Army Institute for Military Assistance. With Exercise GOBBLER WOODS VIII (2-70) (December, 1969), the Unconventional Warfare Course was retitled to become the Special Forces Officer Course.

9. During Exercise GOBBLER WOODS XIII (3-71) (March, 1971) and XIV (4-71) (June, 1971) Marines from the 2nd Marine Division, Camp Lejeune, North Carolina, were utilized as the guerrilla force. Their participation was a beneficial contribution to the exercise. Coordination has been undertaken to obtain Marine participation in future exercises, possibly as both the guerrilla force and the counter-insurgency force.

RECOMMENDATIONS AND CONCLUSIONS: None

SUBJECT: Practical Training in the WOBC/OCC Courses

PURPOSE. To explain the use of practical training in the WAC Officer Basic and Officer Candidate courses as an instructional technique.

FACTS.

1. Students in the WAC Officer Basic and Officer Candidate courses receive one week of practical on-the-job training in staff offices at Anniston Army Depot; Headquarters, USAS/TC Fort McClellan, Headquarters, US WAC Center, and in WAC troop units at the US WAC Center and School. Training is conducted under the close supervision of commanders and supervisors and is monitored by the primary instructor to insure that maximum benefits accrue both to the sponsoring units and staff elements and to the students. Since the WAC Training Battalion receives the largest single group of students, the Battalion Commander personally directs, plans, and supervises all training given in units under her command (See Inclosure 1)*.
2. The broad objective of practical training is to provide an operational environment wherein the student must apply the doctrine, knowledge, and techniques of administration, management, and leadership acquired in the classroom.
3. Practical training has the additional objective of providing a means of evaluating the individual student's abilities, attitudes, motivation, and potential for effective service as commissioned officers in the United States Army. Evaluation forms are provided commanders and supervisors for the purpose of rating individuals and assessing the effectiveness of training received (see Inclosure 2)*.
4. Factors considered in determining individual student assignments for practical training are educational specialties, civilian work experience, the expressed personal interests and desires of the students and the typical jobs to which WAC lieutenants are initially assigned.

*Inclosures removed for sake of brevity

FACT SHEET
ON
EOBC MAINTENANCE MANAGEMENT AND SUPPLY PACKAGE

A. STATEMENT OF PROBLEM

The newly commissioned lieutenant must be provided with a solid foundation in the related areas of maintenance management and supply. It is necessary that he recognize the essential contribution of both toward efficient functioning at the Engineer Platoon level.

B. USAES PROGRAM

1. Annex B of the EOBC POI, entitled "Maintenance Management and Supply" contains 39 hours of instruction, divided into the following 3 interrelated blocks:

- a. Introduction to Maintenance (2 lessons total 8 hrs)
- b. Supply Procedures (6 lessons total 12 hrs)
- c. Applied Maintenance Management (5 lessons total 19 hrs)

The annex is designed both to provide the student with a working knowledge of the Army Supply System and to acquaint him with the concepts, objectives, and responsibilities for maintenance of Army material in an effective equipment maintenance program.

2. Content of Annex B is provided in summary form at Inclosure 1. The class in Applied Maintenance Management is conducted in a realistic motor pool environment. It is a 6 hour practical exercise in motor pool operation requiring the application of information and procedures from previous instruction in the Annex. The lesson includes physical inspection of equipment and equipment log book records, performance of ESC evaluations, and preparation of realistic readiness reports.

3. During EOBC, students participate in a continuing log book exercise which familiarizes them with the contents of equipment log books as well as records procedures involved in the use of log books. The students are required, over a 7 week period, to perform the log book-related functions of all maintenance and supervisory personnel within the organizational category of maintenance.

MAINTENANCE MANAGEMENT AND SUPPLY SEGMENT

<u>SUBJECT</u>	<u>HRS</u>	<u>MAIN POINTS</u>
1. Army Maintenance System	3C	Introduction to course. Introduction to Log Book Exercise. Tour of motor pool. Categories of maintenance. AR 750-1 and AR 750-5. Handout Log Book exercise SOP.
2. The Army Maintenance Management System	3C, 2PE	Introduction to TM 38-750, Operational, Maintenance and Historical records. Two hour Log Book PE Log Book exercise begins.
3. Inventories and Hand Receipts	1L	Assuming responsibility for property.
4. Adjustment Transactions	.7L, .3TV	Relief from responsibility.
5. Technical Publications	1.5C, .5PE	Characteristics of DA Publications, emphasis on repair parts.
6. Prescribed Load	2C	Repair parts stockage, initiating and maintaining.
7. Request and Turn-in of Repair Parts	2C, 1PE	Request for expendables, issue priority system, turn-in of repair parts.
8. Repair Parts PE	3PE	Student works as clerk in support of a PLL.
9. Maintenance Inspections	2.5C, 2.5PE	Types of inspections. Preventive Maintenance Indicators. Equipment Serviceability Evaluation. DA Pam 750-1.
10. Materiel Readiness	2C, 2PE	TM 38-750, para 3-6.
11. Unit Readiness	1C, 1PE	AR 220-1, personnel, training and logistics.
12. Applied Maintenance Management PE	6PE	Inspections, motor pool tour, records inspection, Materiel and Unit Readiness PE.
13. Maintenance Management and Supply Exam and Critique	1E, 1C	Exam represents approximately 11% of academic grade weights in course.



DEPARTMENT OF THE ARMY
UNITED STATES ARMY FIELD ARTILLERY SCHOOL
OFFICE OF THE COMMANDANT
FORT SILL, OKLAHOMA 73503

ATSPA-DI-CU-P

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: *Systems Engineering of the Field Artillery Officer Basic Course (FAOBC)*

1. References:

a. CONARC Regulation 350-100-1, *Systems Engineering of Training (Course Design)*, 1 Feb 68.

b. Annex Q, CON Reg 350-1, *Army Schools Curriculum Administration and training Policies*, 15 Dec 69.

c. Change 8, USAFAS Reg 1-1, *Course Development/Revision Program*, 1 Jan 70.

2. The purpose of this memorandum is to provide guidance for the development of a FAOBC by the systems engineering process.

3. The following guidance is announced for the systems engineering design of the FAOBC:

a. The purpose of the OBC is to prepare newly commissioned field artillery officers for their first 6-month duty assignment, to instill in them a feeling of dignity and confidence, and a sense of duty and obligation for service. Emphasis will be placed on leadership and on providing basic branch training designed to impart the knowledge and skills required in the performance of the duties of FO, FDO, and XO in a towed or self-propelled cannon artillery battery.

b. The course will be developed using the following overall philosophical approach:

(1) The OBC should be designed as a leadership course and as a "coaching session," focused toward helping the newly commissioned officer over the shoals of his first six months duty. It should not be geared to developing branch expertise in depth.

(2) The course should emphasize practical work and field type instruction, to include night training. It must minimize the use of formal lectures and

MEMORANDUM

SUBJECT: Systems Engineering of the Field Artillery Officer Basic Course (PROSC)

conferences in order to provide more time for "hands-on" training. To accomplish this, subject matter which must be presented during the course and which normally would be presented as lecture or conference type instruction, instead, will be presented, where possible, as programmed instruction, required reading assignment, or through other appropriate media.

(3) The level of instruction in OBC should be geared to troop leading at platoon leader level. It should not try to make battery commanders of its graduates.

(4) The course should be a training program as opposed to a university "educational experience." It should provide the student with the specific training that is necessary to bridge the gap from a college student to a second lieutenant. Nice-to-know instruction should be held to a bare minimum.

(5) The course should be oriented toward a "mid-intensity conventional" conflict. Aspects of low intensity conflict and high intensity nuclear-type conflict should be given for familiarization but not overly emphasized.

c. Curriculum guidance:

(1) A physical conditioning program that develops leadership, self-confidence, and mental, physical and emotional stamina in a simulated combat environment will be made part of the OBC.

(2) Maintenance instruction will be practical work in the motor pool or shop and should be restricted to the operations of the Army Maintenance System and the essentials of administration, inspections, preventive maintenance, equipment serviceability criteria, and other maintenance problems met at the battery level.

(3) Common subjects will be included in the OBC. To the maximum extent possible, these subjects will be integrated with other instruction. The common subjects are listed in Appendix II, Annex Q, CONARC Reg 350-1.

(4) The course will contain a contemporary leadership program.

d. In addition to the above guidance, consider the feasibility of developing the following two programs for inclusion in the OBC:

(1) An "OBC level" dual purpose, branch oriented electives program--the purpose of the electives program would be to provide those students

131
ATSFPA-DI-CU-P

MEMORANDUM

SUBJECT: Systems Engineering of the Field Artillery Officer Basic Course (FAOBC)

whose diagnostic test scores indicate mastery in certain areas of the course with in-depth instruction in these areas or related subjects and to provide those students who fall behind their contemporaries with remedial instruction.

(2) A 2-day OJT program (see incl 3)--The purpose of the OJT program would be to provide the student with a realistic experience of the day-by-day duties performed by officers in a field artillery battery. Basically, the OJT concept is an extension of the "hands-on" aspect of training wherein students would be assigned to tactical field artillery batteries for a period of 2 days at some point during the course. Each student would accompany a battery officer during duty hours regardless of the assigned duty being performed by the battery officer.

4. I recognize that the ultimate length of the course should be determined by the systems engineering process; however, based upon CONARC's guidance, we should not exceed the current course length parameter of 12 weeks.

5. I visualize the OBC to be divided into three phases. The first would consist of inprocessing, orientation, and common subjects; the second would consist of classroom instruction and practical exercises; and the third would be extensive field training. Inclosure 2 shows the concept for developing the course. In systems engineering the course, consideration should be given to developing the course by phases.

6. I realize that the planned period for systems engineering the OBC coincides with the time frame for systems engineering the OAC. This apparent conflict, while causing us to put out a little more, will result in developing courses that complement each other and eliminate any unnecessary duplication that may exist between the two courses.

7. I consider the FAOBC one of the most important courses taught at USAFAS. I believe that our success in maintaining a strong officer corps, and in attracting competent officers to stay in the military service, is directly related to the newly commissioned officers' first experience with the military service. I encourage academic department directors to place maximum supervisory emphasis on this course in order to develop greater professionalism and motivation among newly commissioned officers.

8. It is my intention to provide in the above guidance my considered judgment as to several approaches that should be taken during the design of the FAOBC.

ATSPA-DI-CU-1

MEMORANDUM

SUBJECT: Systems Engineering of the Field Artillery Officer Basic Course
(FAOBC)

by systems engineering. My guidance is in keeping with the guidance issued by CG CONARC and is in accord with existing CONARC and USAFAS regulations covering the systems engineering of resident courses of instruction.

3 Incl

1. Milestones for Sys Engr OBC
2. Concept for Dev OBC
3. Commandant's Guidance

LAWRENCE H. CARUTHERS, JR.

Brigadier General, USA
Acting Commandant

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Dir, ODOL

Chief, NBO

*Inclosures removed for sake of brevity

MIXED SEMINARS IN AIR WAR COLLEGE, AIR COMMAND AND STAFF COLLEGE, AND SQUADRON OFFICER SCHOOL

AIR WAR COLLEGE

Air War College (AWC) devotes four hours to the subject of Junior Officer's and Airmen's Perspectives. During the first period a panel of representative airmen from Maxwell AFB discuss their likes and dislikes and the things that "turn them on and off" in their Air Force careers. This is followed during the second hour by a panel of six SOS faculty members who discuss much the same question from the point of view of junior officers in the Air Force. During the third and fourth hours, two Squadron Officer School students meet in each AWC seminar group of 12 men to discuss aspects of junior officer attitudes.

The objective for this instruction is to increase understanding of the factors which influence the career motivation of young officers and airmen. Questions discussed include:

- a. The attitudes of junior officers and airmen toward leadership and motivation.
- b. Changes in personnel policies which might increase retention of young officers and airmen.
- c. Possible organizational and procedural changes which could enhance career motivation.
- d. Attitudes toward racial equality and drug abuse held by junior officers and airmen.

AIR COMMAND AND STAFF COLLEGE

Air Command and Staff College (ACSC) has a three-hour period devoted to the NCO and the Junior Officer in the Air Force. During the first period a senior NCO from the Academic Instructor Course (AIC) faculty speaks about the NCO in the Air Force: his roles, aspirations, successes, and frustrations. This is followed by a one-hour presentation on the same subject but as pertains to the junior officer. A recent Air Force Academy graduate with 18 months service as a procurement officer is used as the speaker this year. These two lectures are followed by a question and answer session in which five Squadron Officer School students serve on a panel and answer questions from the ACSC student body.

The objective of these periods is to know the general qualifications and aspirations of the contemporary junior officer and NCO and how they support the management and command structure.

SQUADRON OFFICER SCHOOL

A three-hour seminar in the eleventh week of Squadron Officer School (SOS) is devoted to career motivation. One Air War College student, or other senior officer from Maxwell Air Force Base, meets with each SOS seminar group of 12 officers. This seminar follows instruction on motivation theory, career planning, officer promotion, officer career development and other leadership and management related instruction. The purpose of this period is to increase understanding of those factors that affect the motivation and retention of junior officers. The discussion centers around ideas of what makes the Air Force attractive and unattractive to junior officers.

RESULTS

All three schools (AWC, ACSC, and SOS) are enthusiastic about this approach to improving understanding between all levels of Air Force personnel.

V METHODS OF INSTRUCTION

127

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INFANTRY SCHOOL
FORT BENNING, GEORGIA 31905

FACT SHEET ON: Experimentation in Instruction Program

PURPOSE OF PROGRAM/PROJECT:

To promote experimentation to increase instructional efficiency

DESCRIPTION/EXPLANATION:

1. This program is based on the assumption that there is a vast reservoir of talent, imagination and creative ability in instructional departments that will initiate significant improvements in instruction if given the opportunity and encouraged.
2. Prior to initiation of this program, changes in instruction required preparation of numerous forms and changes in permanent files. These administrative requirements tended to inhibit experimentation. Under the new program, departments describe experiments they wish to conduct and request approval of the projects on a Disposition Form (DA Form 2496). Approval of the experiment is granted by comment 2. No other formal paperwork is required. Policies governing the program are at Inclosure 1. Control of the program is maintained by reviewing requests for approval of experiments, and by limiting the period of experimentation to not more than 90 days.
3. This program was initiated in December 1969. Since that time, departments have conducted about 145 experiments which resulted in about 100 changes to programs of instruction. Most of these experiments involved changes in methods of instruction or reorganization of the subject matter to enhance learning. For example, experimentation indicates that the seminar and case study methods have significant advantages over lecture or conference techniques in teaching some management and stability operation subjects. It has also been effective in restructuring the subject matter in communications, weapons, and maintenance instruction for the Infantry Officer Advanced Course.
4. The program has been effective in creating an organizational atmosphere conducive to experimentation, and in cultivating attitudes favorable to innovations among the staff and faculty.

128

**DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY INFANTRY SCHOOL
FORT BENNING, GEORGIA 31905**

**MEMORANDUM
NUMBER 350-3**

9 December 1969

EXPERIMENTATION IN INSTRUCTION

- 1. The purpose of this memorandum is to provide Departments with an opportunity to experiment with instructional problems prior to initiating the formal request (FB Form 105-1) required to effect a change to the program of instruction. It is anticipated that the procedures described herein will provide an incentive for the development of new techniques and methods of presentation by deferring the necessity for time-consuming formal changes until after the desired revisions have been verified by experimentation.**
- 2. Departments desiring to conduct instructional experiments will submit to the Director of Instruction, ATTN: CD, the title of the problem or problems involved in the experimentation and a short description of the proposed changes, including any new support requirements. Requests to conduct experiments must be submitted at least 30 days in advance to permit sufficient time to coordinate and schedule the revised support requirements. This will also preclude the need for any problem card or POI changes during experimentation. The Director of Instruction's office will notify departments in writing of all classes approved for experimentation NLT 10 days after receipt of the above discussed requests.**
- 3. Experimentation will be permitted for any given problem for not more than three consecutive classes, or for a period of time not to exceed 90 days, whichever occurs first. Departments anticipating effecting a formal change to the POI based on the first or second experiment should initiate the necessary actions as outlined in the USAIS SOP to insure that the class will be formally changed upon termination of experimentation. If, however, no action is taken to change the problem, it will revert automatically to its original form after experimentation. A department may cancel an experiment any time by notifying the Office of the DI, ATTN: CD. All classes in the POI may continue to be changed at any time with or without experimentation using the existing system.**
- 4. A notation will be placed in the visitor folder of each class indicating**

USAIS Memorandum

9 December 1969

that the problem is under experimentation and specifying the period of time or classes (by number) affected. This notation should be in sufficient detail to provide adequate explanation to visitors and inspectors who might attend the instruction.

5. Except for EDEX or TV classes, new techniques or methods of presentation designed to improve classroom instruction must be capable of being conducted in all types of classrooms available to USAIS. Prior to an experiment which includes an expansion in the time required to present the instruction, coordination must be made with the Director of Instruction to insure that sufficient time exists in the course POI to permit the inclusion of a revised class based on the experiment.

FOR THE ASSISTANT COMMANDANT:

JOHN B. BLOUNT
LTC, Infantry
Secretary

OFFICIAL:

Robert M. Herrick
ROBERT M. HERRICK
Major, Infantry
Deputy Secretary

DISTRIBUTION:

A

130

FACT SHEET

SUBJECT: Views of Dr. Vincent P. Cieri, Education Advisor,
US Army Signal Center and School, on Innovations in Training

PURPOSE: To present basic principles which have guided the planning
and implementation of training innovations.

FACTS:

1. Technological change in a school program should be treated as evolutionary rather than revolutionary.

- a. There is much in our current training programs which is effective and worth retaining.
- b. A gradual change supports acceptance of new ideas.
- c. Changes accomplished without abruptness are often incorporated, not necessarily in final form, into on-going training programs as they are developed and proven effective. This may be construed as a side effect, but really should be of main concern in any research effort.

2. A school does not succeed unless it makes learning an exciting and interesting experience which generates a curiosity and stretches the mind of the student.

- a. Instruction must be made meaningful to the student if it is to be learned, retained and used.
- b. Wherever possible, media should be selected which foster activity on the part of the student in the form of interactive dialogue between student and machine. This interchange serves to increase motivation and to give increased meaning to the subject matter presented to the student.

3. Technology provides the means and not the end of instruction.

- a. The quality of instruction can be no better than the competence of the instructional staff which develops and presents the materials-- regardless of the method or vehicle used.

21

b. It must also be recognized that the technology, in providing machine interface with students, does not operate to dehumanize training. Rather, it should tend to increase the personal relationship between student and instructor by making more time available for personal guidance and assistance through savings achieved in training time by the use of innovations and technological devices.

4. During the process of applying innovations to training, it is suggested that the elimination of proven unsuitable and perhaps less than optimum practices is just as important as the acceptance of new ones.

The tendency in training programs is to add new ideas and subject matter, but there is a general reluctance to remove items which either have become obsolete or have diminished in effectiveness. The elimination of "clutter items" is essential if new ideas are to be properly promulgated.

5. Diversification of techniques of presentation is highly desirable in the presentation of course material provided they are used and evaluated in relation to specific tasks.

a. There is a growing realization that is natural for students to learn from a variety of media simply because to this generation of students, there is nothing alien about advanced methods of communication.

b. In the selection of media, it must be recognized that there is a close relationship between substance (subject matter) and the medium to be considered for use.

132

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INFANTRY SCHOOL
Fort Benning, Georgia 31905

FACT SHEET ON: USAIS Individual Learning Center (ILC)

PURPOSE OF PROGRAM/PROJECT:

To provide a facility and program for reinforcing and supplementing self-paced instruction.

DESCRIPTION/EXPLANATION:

1. Pre-Development:

a. Plans for the establishment of a learning center facility date back at the Infantry School to 1965. At that time, the benefits of an increased use of automated self-paced individualized instruction were recognized, and were astride other plans in the instructional innovations field. Plans were not implemented at that time due to the lack of funds.

b. In 1970 learning center plans were submitted as part of the training and education addendum to the Fort Benning Plan for movement towards a Modern Volunteer Army. The project was approved on 20 November 1970, and \$28,000.00 was allocated for its implementation on 26 January 1971.

c. Action agency for the Individual Learning Center project was the Office of the Director of Instruction, United States Army Infantry School. Project completion required the accomplishment of three tasks: research and development of the physical model ILC; produce necessary software (programs) to be used in conjunction with the educational machinery; and determine operational considerations.

(1) Physical Model: Based on funding guidance, the DI decided to test the Learning Center Concept with a thirty carrel (study booth) facility located in one of the USAIS's 50-man classrooms. Evaluation of existing educational machinery indicated that a synchronized sound-slide system offered the best potential for ease of operation, in-house production, and flexibility. Other programs would utilize existing educational television equipment. The construction of the student carrels was undertaken by the TUSA Training Aids Center. The classroom was repainted, carpeted, re-wired, and tested for sound proofing and lighting. The 30 carrels, a 15 man group study area, and all the educational machinery were installed and readied for operation by 1 March 1971; just 100 days from project approval and 34 days from allocation of funds.

(2) Software: Programed materials to be placed in the Individual Learning Center would include as many different subject areas as student preferences indicated. The initial inventory of programs was developed from existing programed texts and Automated Student Response Teaching System Programs, resident subject matter experts, and available commercially produced materials. Programs available on 1 March were to be only a small representative sampling of projected production goals.

(3) Operational Considerations: The model learning center would be best tested if it was made available to all military personnel and their dependents at Fort Benning. The center would remain open the maximum amount of time possible each week. Personnel required to operate the center included one OIC, one NCOIC, and two Monitors.

2. Operation:

a. On 1 March 1971, when the ILC opened its doors, the following equipment/programs were available for use:

(1) 29 individual student carrels equipped with Norelco Synchrotutors and Kodak Ektographic Slide Projectors.

(2) In addition, four carrels contained 14" RCA Color TV Monitors. These monitors were linked to the 7-channel central ETV distribution system.

(3) Two AMPEX 7100 video tape recorders, capable of transmitting 1" video copies of ETV programs to two of the carrels.

(4) A fifteen man group study area capable of receiving television programs from the ETV Division or the VTRs.

(5) 5 Slide/tape programs and 12 VTR programs for a total of 45 hours of programed instruction. In addition, the more than 500 ETV lessons were available on an on-call basis.

b. To date, students have used more than 3400 programs in the ILC. With the exception of two mandatory requirements (300 students) all student use has been voluntary. Currently 175 to 200 students use the ILC facilities per week.

c. At the present time the following equipment/programs are available:

(1) All equipment mentioned in paragraphs 2a(1) - 2a(4).

(2) 23 individual student responders. These responders record the student's correct as well as incorrect answers to multiple choice questions.

(3) Three super-8mm motion picture projectors. These projectors provide a direct motion interface with standard slide/tape programs.

(4) 83 slide/tape programs and 24 VTR programs for a total of 115 instructional hours. A list of programs available by category is at Inclosure 1.

d. The ILC was designed, and has continued to be, a prototype facility to test and evaluate the concept of individualized, multi-media instruction at USAIS. It has been effective in providing a facility for reinforcing, remedial, and enriching instruction. Acceptance of the concept by the students and School Staff and Faculty, and the progress in the development of programs has been most encouraging. After further tests and evaluation, the Individual Learning Center will expand in size and scope.

e. Tests designed to use the ILC to teach integral parts of core curriculum are currently being conducted and evaluated. Preliminary analysis indicates this will be an effective method of presenting formal instruction. The first scheduled utilization of the ILC in this role will be to the Allied Officer Instructional Methods and Techniques Class beginning mid October 1971. This will result in a substantial savings in instructor man-hours, classroom facilities, and training resources.

*Inclosure removed for sake of brevity

UNITED STATES ARMY FIELD ARTILLERY SCHOOL

FACT SHEET ON
THE APPLICATION OF VARIOUS MEDIA TO DIVERSIFY METHODS OF INSTRUCTION

1. Programed Texts.

a. The selection of blocks of instruction that will be taught through programed text is made by the academic departments when courses are systems engineered. If a course has not been systems engineered, academic departments are given the prerogative of constructing programed text material when the need arises.

b. Programed texts are used to supplement the instruction presented to six different officer courses at USAFAS. Ten programed texts are used to support normal classroom hours, while 21 programed texts are used to present outside study materials and remedial instruction. Seventeen new programed texts are being developed by USAFAS instructional programmers for further support of officer courses.

c. USAFAS has 57 trained instructional programmers with one additional individual undergoing programed instruction training. These instructional programmers are members of various academic departments and were trained in programing techniques at Lackland AFB, Texas.

d. A plan is currently under study to establish an instructional programmers workshop course at USAFAS. Implementation of such a program would facilitate training a larger number of instructional programmers and would also allow the programming course content to be tailored more specifically to the needs of the Field Artillery and the U. S. Army.

2. Educational Television.

a. Closed Circuit Educational Television (CCETV). The development of TV tapes which provide for student participation has proved successful in classroom instruction in observed fire presented to Officer Basic Courses (OBC). Rather than using television as an advanced lecture technique, tapes were developed which allowed the student to actively respond. This requires a student to formulate his own answer, rather than merely concur with a given response. These tapes have been effective in supplementing conventional gunnery techniques and in helping the student officers gain proficiency in the fundamentals of observed fire.

b. Ampex Video Trainer. The Ampex Video Trainer is used as a tool to aid in student self-evaluation in the Communicative Arts block of instruction for the Officer Candidate Course (OCC) and Officer Advanced Course (OAC). Use of the portable video trainer, allowing a student to watch his presentation as it actually appeared to his audience, has increased the objectiveness and reliability of student post performance critiques.

3. Computer.

a. X6F5A Computer Trainer. The Interdata X6F5A Computer Trainer has been incorporated into several periods of the Operations Research/Systems Analysis instruction offered as an elective to Officer Advanced Course (OAC). Use of the computer trainer has reduced the time spent on computing raw data, allowing the students more time for design and evaluation of models.

b. Computer-Assisted Instruction (CAI). Target Acquisition Department under the direction of Data Systems Division, USAFAS, has been preparing materials for CAI since January 1970. Coordination was effected for time-sharing utilization of the computer facilities located at Sheppard AFB, Texas. Five programs have been compiled and are presently ready for use. Eight more programs have been written but have not been entered on the computer at this time. The CAI work completed thus far has had as its main objective the familiarization of instructors with writing and administering CAI programs, and is not being used in direct support of officer classes at this time.

4. Multimedia.

a. In January 1970 USAFAS initiated a group-paced course in Phase II of its Weapons Support Radar Maintenance Course (WSRMC). Phase II of the course consists of instruction on the detailed circuitry of the AN/MPQ-1A and the AN/MPQ-10A Field Artillery radar sets.

b. A multimedia approach featuring programmed texts, programmed TV presentations, and programmed lectures supplemented by more conventional classroom media (viewgraph, 35mm slides, etc.) is utilized.

c. Results in the course thus far indicate that the average student in a class will complete the WSRMC two to three weeks sooner than they did under conventional instruction with a slight improvement in grade average.

d. Although the WSRMC is not an officer course, the data being collected from administrations of the course might well serve as empirical evidence upon which to base future officer educational system decisions.

137

FACT SHEET
on
USE OF COMPUTER TO ASSIST IN SOLUTION OF ENGINEERING TYPE PROBLEMS

A. STATEMENT OF PROBLEM

Advanced Course students require a working knowledge of ADPS and in addition, are required to solve problems that involve long, tedious computations. The USAES felt that these two requirements could be met by providing the student with real life problems and allowing him to utilize the computer to aid in solving these.

B. USAES PROGRAM

Students receive 16 hours of instruction in ADPS which include the use of the computer. This equips them with the basic ability to use one of the 16 teletype computer terminals. These terminals are for student use and are available to the student throughout the remainder of the course. In addition to the ADPS instruction, computer instruction is used in many of the EOAC classes. Two (2) CRT terminals are being used with the ETV display units in the classroom by the instructor personnel. These CRT terminals are being used as an instructor aid much the same way as view-graphs or films have been used for years. Moreover, a dynamic dimension has been introduced by this instructional technique. A sample problem requiring extensive work by hand may be solved for the class in a matter of minutes. If a student asks a question that requires a change to the problem, this change is made and the problem rerun. Instantly the teaching point is reinforced and conceptional material may be clarified.

With the exposure to CAI and his instruction in ADPS, the student can quickly visualize the benefits of using a computer to solve engineering and logistical problems. This is further reinforced by his use of computer terminals to solve problems assigned in other programs of instruction. These problems include:

1. Barrier planning with resource accounting
2. Road, runway and railbed alignment (horizontal and vertical)
3. Fixed bridge design
4. Earthwork volumes (cut and fill calculations)
5. Drainage ditch design
6. Soils classification and calculations
7. Pipe network design
8. Allocation of river crossing resources
9. Topographic computing
10. OR/SA linear programming
11. PERT (with simulation)
12. Critical path method with resource scheduling

All of the above type problems could be solved by the student without the computer, but would require an exorbitant amount of time to cover in the detail that can be included using this method. Allowing the student to solve these problems with a computer increases his proficiency as well as his knowledge in the subject matter.

FACT SHEET

SUBJECT: Application of Computer Assisted Instruction to the Basic Electronics Course

PURPOSE: To explain the Computer Assisted Instruction program conducted at the US Army Signal Center and School

FACTS:

1. Purpose and Scope. The Computer Assisted Instruction Project is a USCONARC directed project tasked to the US Army Signal Center and School to determine the feasibility of employing CAI as an instructional method in conducting basic electronics training. The concept of using CAI as a method of instruction at USASCS has been implemented through the development of individualized, self-paced course material presented to the student in a predominantly tutorial mode. Since the project is a user development effort, emphasis is placed on the practical development and immediate application of this innovative instructional method in the on-going training program of the school.

2. Objectives. The original long range objectives established with the inception of the Computer Assisted Instruction Project are:

- a. To effect substantial saving (target - 20%) in the cost of electronics training without diminishing on-the-job performance.**
- b. To investigate the feasibility of preparing students of lower aptitude for employment in electronic skills.**
- c. To attain an in-house capability in the development and implementation of CAI course material.**

3. Major Achievements and Results. The major achievements and results to date are as follows:

- a. Completion of CAI course materials equivalent to Weeks 1-4 including an audio-augmented version of Week 1.**
- b. Feasibility study (Feb 1968) (Week 1) - Equal achievement, 10.8% saving in training time for CAI.**

129

- c. Follow-up of feasibility study (Sep 1969) (Week 1) - equal achievement, 20. 1% saving in training time for CAI.
- d. Weeks 1-3 - higher achievement particularly on the performance tests and a 30% saving in training time for CAI students.
- e. Development of a subroutine system to maximize on-line storage of course materials.
- f. A professional in-house capability to develop and implement CAI course materials without contractor support personnel.

4. Current Effort. The following represents the current effort on the project with a view towards realizing the long term objectives:

- a. Administration of Weeks 1-4 CAI course materials as part of formal evaluation of CAI versus CI (Conventional Instruction).
- b. Integration of CAI in solid state version of Project COBET (Common Basic Electronics Training).
- c. Development of CAI version of the Computer Technology Course (MOS 34D20).

5. Planned Efforts. Long range efforts will focus on the realization of the following goals:

- a. Introduction of CAI into all phases of MOS courses.
- b. Extension of the integration of CAI to a complete COBET solid state course.

6. Realizable Outcome. Results of evaluation studies have proven the feasibility of employing CAI as an instructional method. Based on the latest results obtained from these evaluations, the realizable outcomes are:

- a. Saving in training time of 25% - 30%.
- b. Improved general achievement by 5% - 10%.
- c. Reduction in setback rate by 20% - 30%.

7. The following is a list of technical reports currently available which have been prepared locally as a direct result of the development and application of CAI course materials:

- a. Technical Report 70-1, "Audio Utilization Conventions and Techniques for Computer Assisted Instruction," March 1970.
- b. Technical Report 70-2, "An Automated Student Registration Procedure (REGIS)," June 1970.
- c. Technical Report 70-3, "A Macro System for Computer Assisted Instruction," May 1970.
- d. Technical Report 71-1, "Application of Computers to Training," April 1971.
- e. Technical Report 71-2, "An Instructional Model for Computer Assisted Instruction," May 1971.
- f. Technical Report 71-3, "Instructional Programming Guide for Computer Assisted Instruction," July 1971.

FACT SHEET

SUBJECT: Common Basic Electronics Training (COBET)

PURPOSE: To explain the purpose and status of Project COBET at the US Army Signal Center and School

FACTS:

1. **Purpose and Scope.** COBET is a CONARC-directed project (regulated by CON Reg 350-13, dated 19 March 1969) designed to produce a basic electronics training program to serve as entrance training for 84 electronic equipment repair MOS courses in ten CONARC schools.
2. **Objectives.**
 - a. To develop a multimedia system for teaching electronic fundamentals by integrating conceptual learning with skill-acquisition using the Systems Engineering of Training approach (CON Reg 350-100-1).
 - b. To design COBET training on a functional, equipment-oriented base rather than on a subjective, theoretical base. Thus, approximately 75% of training time is to be given to practical "hands-on" equipment training with remaining time given to conceptual training integrated appropriately with the practical work.
 - c. To conduct COBET training in an individually-paced mode to allow each student to progress at the rate best suited to his individual differences.
 - d. To evaluate COBET training to determine its effectiveness in preparing entry level electronics equipment repairmen to achieve success in follow-on MOS course training.
 - e. To evaluate the results of COBET training in preparing low-aptitude personnel to succeed in Army electronic equipment repair and maintenance career fields.

3. Methodology.

a. The USASCS COBET group conducted a task analysis survey of all MOS's involved to identify the specific tasks performed in troubleshooting, maintaining, and repairing circuits common to equipment used by all the MOS's in field assignments. This is known as the COBET Common-Circuit Survey.

b. The circuits identified as being most common provided a source for developing ten equipment units to be used in "hands-on" COBET training. The equipment units are designed to serve as training vehicles for modularly-structured COBET training. While progressing through each training module, the student works with a different equipment unit as he acquires the skills and knowledges required for his specific MOS training. The modular structure provides for individual pacing not only within the training module but also from one training module to the next.

c. Terminal Performance Objectives were then developed for each training module consisting of the specific TASKS to be performed; the CONDITIONS under which the tasks will be performed; and the STANDARDS to be achieved by the student while performing the tasks. Skill-knowledge elements were then derived from the objectives and were used to develop COBET subject matter content, training materials, multimedia devices, training environment, and evaluation plan.

d. A unique training environment was developed which provides each student with an individual carrel located in a circular configuration which provides total individual progression with continual observation and guidance by a Learning Supervisor.

4. Progress to Date. COBET training trials began in January 1971, and to date more than 350 students have been trained. Preliminary results of a formal evaluation study indicate that COBET training is significantly more successful than conventional instruction. The individually-paced mode has shown a time savings of about 28 percent over the group-paced mode. Also the academic attrition rate for low aptitude students is substantially lower for COBET trained students as compared to those taking conventional instruction.

FACT SHEET

ATSSS-I-OP

SUBJECT: ETV Usage

PURPOSE:

To provide an overview of ETV utilization for officer training at Fort Gordon.

FACTS:

1. **ETV Usage.** ETV is used by all activities assigned to Fort Gordon. The guiding philosophy for the use of ETV at Fort Gordon is to make the best use of motion visual stimuli in the learning environment and by not utilizing ETV or other visuals for the sake of expediency or academic recognition. (This concept is now reflected in CONARC Systems Engineering Requirements.)
2. **Physical Plant.** The ETV physical plant consists of four closed circuit cable systems providing up to 30 simultaneous channels that service the main Fort Gordon complex of administrative, operational and instructional activities. The 120 miles of cable provides direct hook-up of 1500 ETV receivers in 580 locations. Two fully equipped studios plus a mobile camera system include the capability to convert films to tape as well as to record and present live events. Administrative procedures which permit rapid reaction to instructor requirements enables the Fort Gordon training mission to be supported on a highly responsive basis thru the use of existing instructional material from the Army Training Film Library, CONARC Video tape Recording Library or by specially prepared instructional materials for usage by Fort Gordon training agencies.
3. **Officer Training.** ETV usage has been very selective in officer training by USASESS and only represents a total usage of 7%. It has, however, been most effective. The following are examples of ETV programs being developed and used at Fort Gordon:
 - a. **Race Relations (TVR 20-39 thru 20-53)** - a series of racial situations that could possibly confront the company grade officer.

144
ATSSS-I-OP
SUBJECT: ETV Usage

b. Leadership (TVR 17-6 thru 17-10) - a series of situations designed to exemplify leadership problems.

c. Military Justice (TVR 21-6) - this program is a dramatization of the proper procedure for the administration of non-judicial punishment.

d. The Signal Center (TVR 2-15 thru 2-22) - a series that explains and illustrates the concept, organization and basic equipment of a tactical signal center.

Officer training in the Military Police School and the Civil Affairs School is also supported by the ETV facilities of the Southeastern Signal School.

4. Enlisted Training. The bulk of ETV service is to provide to the enlisted courses of USASESS. With the emphasis placed on Self-Paced Instruction, the use of ETV provides greater flexibility and responsiveness to Student requirements.

5. Staff and Faculty Training. School cadre are served by a variety of ETV programs. These include Command Information, Safety, and other programs of both general and specific interest.

6. Future Outlook. As its benefits become more fully realized, the use of ETV by USASESS continues to grow in both quantity and quality.

145

PHILOSOPHY, APPROACH AND PRACTICES IN SQUADRON OFFICER SCHOOL

Course Philosophy.

- a. Squadron Officer School (SOS) is concerned with education, not training, and with the broad outlook of the commander and staff officer rather than the concentrated outlook of the specialist. In the professional development of young officers, SOS seeks to develop the whole man. In the mental, physical, and ethical areas, SOS seeks to guide the young officer toward his maximum potential as an AF leader.
- b. SOS seeks to increase in its students the ability to solve problems systematically and logically, to communicate clearly and concisely, and to apply sound concepts of human relations and techniques of leadership. In the decision making process, SOS recognizes a guiding principle which is stated as the school theme: "Think--Communicate --Cooperate."
- c. The school recognizes the need for officers who are dedicated to preserving our democratic way of life. To meet this need, the school seeks to develop positive attitudes that include a deep sense of ethical and moral responsibility. School situations are designed to challenge the individual and the group and to offer the opportunity to realize the importance of accepting new situations and responsibilities with determination and courage. The voluntary acceptance of these challenges serves to orient the young officer as a member of a team working toward a group goal.

Methods of Instruction. Lectures and readings provide the student with facts, principles, and concepts. Small group work supervised by the section commander stimulates interest, promotes understanding, and provides opportunities for application in problem solving seminars, staff exercises, and outdoor activities. These seminar problems and exercises are student-centered, and, for the most part, student-led so that each student learns by doing. Situations and activities are created to provide the maximum opportunity for each student to use his initiative to acquire knowledge. Further learning is acquired through informal and formal counseling by the section commander who provides the student with an analysis of his progress. During counseling periods, the instructor discusses with each student identifiable strengths and weaknesses and suggests measures for self-improvement.

Pattern and Sequence of Instruction.

a. The pattern of instruction is a whole-to-part-to-whole sequence. This is accomplished by integrating subject matter from the various curriculum areas. The initial instruction is designed to develop individual skills. Instruction includes group discussion, problem solving, logical thinking, and effective writing and speaking. The objective of the area is to increase the individual skills required to solve problems logically and to communicate effectively. Formal instruction includes programmed instruction, lectures, and reading assignments which are integrated with a series of problem solving, writing, and speaking exercises designed to increase the officer's individual skills and also to motivate him to continue to develop these skills. Communicative skills are critiqued during all seminar exercises. A diversified reading program expands on the instruction in all areas and encourages a program for continued study.

b. Instruction in the leadership area is based on the three factors of the leadership problem: the leader, the men, and the situation. The individual-oriented instruction emphasizes the requisite attributes, attitudes, and techniques of the Air Force leader. The emphasis is on human relations; the principles and techniques of leadership; and the importance of discipline, esprit, and moral and ethical values. The group-oriented instruction emphasizes the individual as a member of a group working toward a designated goal. Lectures, seminars, exercises, laboratories, and group activities provide an environment for developing better self-understanding, greater awareness of human behavior, and improved human relations skills. The impact of human dynamics on the leadership problem is explored through study of human behavior. Lectures and seminars are supplemented by a series of field exercises, competitive athletics, physical conditioning, combative measures techniques, and formal ceremonies. Individual leadership ability is observed, evaluated, and critiqued throughout the course.

c. The third area of instruction is National Power and International Relations. This area is divided into three phases: National Power, Democracy and Communism, and International Relations. Instruction in the first phase includes an analysis of all factors of national power including development of national objectives and policy, instruments of national power, organization of the United States military instrument, and command and control of the instruments through which policies are implemented. In the second phase, the construction focuses on the ideological characteristics of democracy and communism. The study of international relations deals with foreign policy, international organizations, and arms control and disarmament.

117

d. Immediately following National Power and International Relations, instruction begins in management. The objective is to increase the students' understanding of basic management concepts, techniques and the application of these concepts and techniques in the Air Force. The instruction gives him a working knowledge of information systems, automatic data processing, military analysis tools and techniques, and finally how Air Force resources--men, money, materiel-- are managed. Classroom exercises in this area require performance by the student in command and staff positions. Evaluation and critiques emphasize mission orientation and the need to give concrete meaning to the responsibilities and functions of the Air Force commander and manager.

e. Forces and Employment is the final area of instruction. Instruction includes presentations of the rationale, composition, functions, and relationships of aerospace forces to other military forces; the impact of technological developments on aerospace weapons and warfare; counterinsurgency; the basic doctrine for employing aerospace forces; and the various levels of conflict from cold war and insurgency to general war. The area concludes with a week-long employment exercise which integrates instruction throughout the curriculum. The student is required to demonstrate his leadership capability, to communicate his decisions, and to perform as a member of the command and staff team. Also, he must apply his knowledge, not only of command and staff functions, but also of aerospace doctrine and employment of aerospace forces.

FACT SHEET

SUBJECT: Developmental Reading.

PURPOSE: To explain the Developmental Reading Program of the Adjutant General School.

FACTS: a. Since reading training in the public school system typically stops at about the seventh grade, the average adult's reading rate is little better than he possessed as a child; roughly, 250 - 300 words per minute with 60-70% comprehension.

b. The USAAGS Reading Program minimum course goal is to double this efficiency level, but in actual practice students typically triple and quadruple their reading proficiency; gains in excess of 800 - 1000% are not unusual.

c. The course attacks the three basic impediments to efficient reading: vocalization, regression, and word-by-word reading by employing special projection equipment and printed materials. Since each session requires a high degree of concentration on the part of the student, the 30-hour course is spread over 5-weeks. In specialized applications, the course can be abbreviated to as few as 14 hours, although less habituation of reading skills can take place with the shortened version.

d. Although no special skills are required to teach the course, class gains generally are increased as instructor personnel gain familiarity with conducting the program. This program requires equipment and materials which cost about \$2500.00. In our instruction a variable speed projector (Tachistiscope) is used to project film strips (frames) of numbers, symbols and reading materials on a screen. Speed and difficulty level of the materials are increased as rapidly as possible.

e. Although each student is actually in competition with only his own reading inadequacies, we have found that peer and group pressure exert a stimulating and beneficial influence on all participants. This is done by posting student and class mean scores on a progress chart daily in the classroom. Discussion of both individual scores and class mean scores motivates all students to increase their reading speed in order to increase the class mean score.

FACT SHEET

SUBJECT: Effective Listening Training.

PURPOSE: To explain the Effective Listening Training Course developed by and in use in the Adjutant General School.

FACTS: a. Of all the communication media; reading, writing, speaking, and listening, the latter is the most infrequently taught. A number of studies indicate, however, that of the four modes, listening is the most widely used--upwards of 50% of the total time that the average person is reacting and/or interacting with others. Numerous other studies indicate that persons untrained in this skill retain less than half of what they hear.

b. A course developed by USAAGS seeks to double listening efficiency, and does so in about 90% of the cases. Gains in efficiency are determined by comparing results on pre- and post-tests. The course makes use of a series of narrative statements to which the student listens and responds; responses are in the form of brief summaries of the critical content of the statement. Instruction in listening technique is interspersed throughout the 3-hour course.

c. Unlike several commercial programs that have been marketed, the Adjutant General School program uses a TV presentation instead of only listening tapes. Thus our listening exercises require the student to cut through the distractions of what he sees as well as what he hears. Users who have no television facility may use the sound track on conventional tape recorders with excellent results.

d. Originally designed as a 3-hour programmed instruction course for use by a single student, USAAGS has employed the course successfully in a group-paced instruction.

e. For a group situation the course requires no "instructor" as such; a monitor/administrator is necessary to introduce the program, collect, grade, and return student papers and report group results to each class. The course can be used for individual learning as well. In this connection, the course can be presented in a learning center or carrel equipped with a TV set.

FACT SHEET

SUBJECT: Memory Development Instruction.

PURPOSE: To explain memory development instruction used by the Adjutant General School.

FACTS: a. Instruction in Mnemonics (Memory) Techniques has become a very effective and popular addition to the Professional Development courses developed by the Adjutant General School.

b. Memory capacity is linked with intelligence. Neither quotient can be increased, per se; however, through the use of Mnemonic Devices, an individual's capabilities in memory can be expanded resulting in a seemingly higher intelligence quotient.

c. Using eight methods of "association", the student is taught how to apply these to fit his individual needs and increase temporary and/or permanent retention.

d. The course runs ten hours in length. Effective presentation requires an experienced instructor. The course is aimed at group audiences and utilizes handouts in addition to the instructor's lecture. Association techniques are learned through exposure and practical exercises in the following areas:

- (1) Classification of individual memory type.
- (2) Concentration and powers of observation.
- (3) Names and faces.
- (4) Lists and procedures:
 - (a) Random order.
 - (b) Significant order.
- (5) Telephone numbers.
- (6) Numbers in general.
- (7) Spelling and pronunciation.
- (8) Temporary and permanent recall.

e. The basic increase in memory capabilities which results from completion of the course is usually 35-40%. Long-term retention of memory ability is linked in direct proportion with practice.

Industrial College of the Armed Forces

Fact Sheet

ICAF Simulation Effort

1. **MDE*** - Conducted in mid-November as a part of Course 430 -- Management of Industrial Resources, was implemented in a time-shared mode allowing active student participation and interaction with the computer through their use of teletype terminals. During the simulation, student teams assumed the roles of executive managers of competing business firms. Operating in an environment that highlighted and drew upon important aspects of the Course 430 subject matter (e.g., production, marketing, research and development, and return on investment), the students were confronted with, and acted upon, a variety of typical business management problems. In this year's exercise the emphasis continued to be upon providing the students with the capability of analyzing the actions of competing teams as well as the structure of the model itself, while simultaneously performing as participants. This was accomplished by providing each team with the capability of interrogating the model by entering information about not only a team's contemplated future decisions, but also a number of assumptions concerning their competitors' future decisions. The combination of using the model to simulate an oligopolistic business environment, while concurrently using the same model as a tool of analysis and decisionmaking under uncertainty, resulted in giving the student a better understanding of models and simulation. In addition, the students were provided with a dynamic demonstration of the organization, planning, and control required for sound management in a simulated, but realistic business environment.
2. **IRE*** - Conducted in early February as part of Course 450 -- National Economic Problems and Policies. It was designed to highlight and complement lessons learned not only in Course 450, but also in earlier courses 410 and 440. In this simulation, student teams acted as the national political leadership of one of six different nations. In these roles they were called upon to develop and implement policies involving political, diplomatic, economic, and military factors. The primary purpose of the exercise was to expose the students, in a dramatic way, to some of the problems and pressures involved in the formulation and execution of foreign and domestic policy at the highest levels of government. The IRE, a completely in-house design and programming effort, has received wide attention and use. Improvement to this simulation of international relations will be accomplished on a continuing basis to satisfy ICAF's future requirements.
3. **DMS*** - Conducted in mid-April as a part of Course 460 -- Management in the Department of Defense. The primary purpose of DMS was to give the students practical familiarity with some of the significant features of current DOD management practices emphasized in the ICAF curriculum. For this simulation the class was divided into teams, composed of six members each, which acted as DOD program managers responsible for the simulated

development and procurement of a new weapon system. The student teams had an opportunity to cope with many problems typical of those encountered from contract inception to deployment.

*MDE - Management Decisionmaking Exercise

IRE - International Relations Exercise

DMS - Defense Management Simulation

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INFANTRY SCHOOL
Fort Benning, Georgia 31905

FACT SHEET ON: Combined Arms Tactical Training Simulator

PURPOSE OF PROGRAM/PROJECT:

To develop a simulator to train future commanders and key staff officers in applying tactics and techniques required for successful command and control of combat units on the battlefield.

DESCRIPTION/EXPLANATION:

1. In March of 1969, in response to a stated need from Vietnam, The Infantry School initiated development of a simulator for training commanders and key staff officers to command and control combat operations from an airborne platform. The objective of the simulator is to duplicate to the maximum extent possible the stress and pressures of the modern airmobile battlefield reducing that which the student must imagine to the minimum. The simulator currently in use was fabricated locally and consists of three major subsystems. The physical environment of the commander, his operations officer, fire support coordinator and air mission commander is simulated by a mock up of the UH-1 C&C helicopter. The mock up is located on a platform which simulates the aerial vantage point. The visual environment, the second subsystem, is created by a terrain model located below the mock up. This model is constructed to correspond precisely to terrain approximately 10 x 12 kilometers. Small lights and scale models located on the model are used to indicate friendly and enemy fires and other activities on and above the battlefield. The models and lights are operated by assistant instructor/controllers located directly beneath the helicopter mock up. The most critical function of these instructor/controllers is the creation of the audio environment, the third subsystem, by simulating the radio nets of higher, lower and adjacent headquarters. The students in the helicopter mock up are provided an AN/ASC 15 C&C console simulator which functions like the actual equipment. Together, these three subsystems create a realistic battlefield environment for the students which requires them to act and react to a realistic, constantly changing tactical situation.

154

2. In addition to improving the realism of instruction the simulator is an invaluable research tool. It provides a means for developing the training techniques and literature that would be necessary for the sophisticated follow-on simulator required to meet the long range training objectives of the Infantry School. The concept for this advanced simulator has been submitted to HQ CONARC as a Training Device Requirement (TDR). The TDR has been forwarded to DA ACSFOR by HQ CONARC with a recommendation for approval.

3. The simulator has been used to train command recommended Lieutenant Colonels and Colonels attending the Special Vietnamese Orientation Course en route to Vietnam. As a result of the favorable comments concerning this training received from these officers after their arrival in Vietnam, training with the simulator is now being included in the Infantry Officers Advanced Courses.

4. A distinct advantage of this simulator is the low instructor/student (1:2) ratio. This low ratio is obtained without creating exorbitant manpower requirements on the instructional committee because CATTs is offered as an elective to Infantry Officer Advanced Course students. From this elective course, students are selected and trained to serve as peer instructors. As peer instructors, the students assist the committee instructors in administering CATTs training to their fellow classmates.

FACT SHEET ON
DEVELOPMENT AND USE OF TRAINING DEVICES AND SIMULATORS

1. Field Artillery Forward Observer Trainer (FO Trainer).

a. In December 1970 USAFAS prepared and forwarded to CONARC for world-wide staffing a Draft Proposed Training Device Requirement (DPTDR) for a FO Trainer. Recently the staffing was completed, incorporated in the DPTDR and the DPTDR sent back to CONARC to be forwarded to DA. This staffing resulted in the DPTDR stating that the FO Trainer will be capable of being modified for adapting a Simulator Laser Range Finder at some future date.

b. This device requirement was designed to provide an economical means of training junior field artillery officers, officer candidates, and noncommissioned officer education system students in the duties of the forward observer. The device will have the capability of simulating all types of artillery bursts with 1, 2, or 6 cannons and having the simulated smoke and dust effects drift realistically under a 10 mph wind condition. The target area will be covered by 1:50,000 topographic maps, possess the capability of presenting targets in a tactical configuration, and have a visual perception of down to 25 meter in accuracy of artillery bursts.

c. The Training Device Requirement for the FO Trainer is presently being prepared by CONARC for submission to DA. If DA approves this training device requirement, a prototype will be developed by the Army Participation Group at the Naval Training Devices Center and the device tested at USAFAS.

2. Field Artillery Fire Support Coordination Simulator (FSCS).

a. As an outgrowth of Fort Benning's development of an interim Airmobile Command and Control Simulator (ACCS) the U. S. Army Field Artillery School (USAFAS) defined a requirement for a FSCS. Since these devices are very similar CONARC revised the training device requirement for the ACCS to include the requirements specified by USAFAS. The device was renamed Combined Arms Tactical Training Simulator (CATTS) to reflect its broadened scope.

b. CATTS will simulate a variety of combat situations for the training of future commanders and a limited staff in either of two simulated combat options; a tactical ground command post environment or a command and control helicopter environment. USAFAS is particularly interested in using CATTS to simulate combat tactical fire support operations as experienced by the battalion liaison officers, the brigade INO, the Fire Support Coordinator at the division level, and the Division Artillery S3.

c. The FSCS as an interim device at USAFAS is being considered for development.

156

d. The Training Device Requirement (TDR) for CATTS has been approved by CONARC and was sent to DA 20 August 71 for approval. If DA approves the TDR two prototypes will be developed by the Army Participation Group at the Naval Training Device Center and the device will be tested at both USAIS and USAFAS.

3. Field Artillery Tactical Team Trainer (T3).

a. In August 1971 USAFAS prepared and forwarded to CONARC for world-wide staffing a Draft Proposed Training Device Requirement (DPTDR) for a T3. The trainer will provide operational and skill development training in field artillery operations within the division under a variety of combat situations.

b. The T3 will be designed to develop situations encountered by field artillery commanders, their staffs, and battery officers within the division. The trainer will enable student officers to realistically develop courses of action and plans in reaction to a given situation. The student then transmits orders to the appropriate field artillery elements. The issuance of these orders will further develop the tactical situation and in turn will create additional situations and keep the problem moving in a realistic manner.

c. Areas involved in the T3 include Division Fire Support Element, Division Artillery Fire Direction Center, 105 Battalion, 155/8-in Battalion, and Honest John/Lance Battalion. Simulated activities include survey, meteorological radar and communications. This device will also incorporate it in the Forward Observer Trainer and the Combined Arms Tactical Training Simulator (CATTS).

d. The T3 is presently being held at CONARC pending DA's action on CATTS. If CATTS is approved it will provide for a less expensive element in the T3 and the DPTDR will be changed accordingly.

e. After a decision is made on CATTS, CONARC will submit the training device requirement for world-wide staffing. The results of this staffing will be incorporated in the DPTDR by USAFAS and be resubmitted to CONARC. CONARC will then, if it approves, send the DPTDR to DA for approval. From here the DPTDR will go to the Army Participation Group at the Naval Training Devices Center for development of a prototype which will be tested at USAFAS.

57
Weapons Department
UNITED STATES ARMY INFANTRY SCHOOL
Fort Benning, Georgia 31905

FACT SHEET ON: Large Scale Indirect Fire Adjustment Simulator (Puff Board)

PURPOSE OF PROGRAM/PROJECT:

Under development for possible use in indirect fire adjustment training.

DESCRIPTION/EXPLANATION:

1. The feasibility model works on the oxy-acetylene principle, similar to a welding torch, and is designed to simulate the flash, sound, and smoke of a mortar round upon detonation. An electrical spark ignites an oxy-acetylene mixture. The resultant explosion ignites and ejects a fuel oil mixture which creates a flash and smoke to accompany the sound of the original detonation.
2. As currently envisioned, these devices would be emplaced 50 meters apart in a target area 1000 meters square. Using a master control panel, the instructor may be able to realistically adjust student fire missions at a considerable reduction in ammunition cost, with an increase in safety, while retaining realistic sight and sound representations of live ammunition. As proposed, the system could be used to teach the basic fundamentals of indirect fire adjustment, thereby reducing the requirement for live ammunition necessary to achieve mastery of the subject.
3. A Draft Proposed Training Device Requirement has been returned to USAIS by CONARC with comments from world-wide coordination. The DPTDR will be revised to incorporate appropriate comments from world-wide coordination and resubmitted to CONARC to meet a 15 October 1971 suspense.
4. A picture of the device which simulates an exploding round is at Inclosure 1.*

*Removed for sake of brevity

15

WEAPONS DEPARTMENT
US ARMY ARMOR SCHOOL

PURPOSE

To provide information concerning the laser tank gunnery trainers currently in use at the Armor School, Fort Knox, Kentucky.

FACTS

1. The laser tank gunnery trainer is a device used for training tank gunners in basic gunnery skills and to fire training exercises for maintenance of gunner proficiency. The subcaliber tables described in FM 17-12 are designed to be fired with the 7.62mm M73 machinegun that is mounted coaxially with the main tank gun. This firing simulates that of the main gun for instruction of novice gunners, and has the advantage that the trauma of firing the main gun is removed. As described in FM 17-12, 52 rounds are required to fire the three tables.
2. Specific. At present the USAARMS uses the 3A102B Ruby Rod Laser tank gunnery trainer for all subcaliber firing exercises. (See Inclosure 1)* This trainer mounts in the mount used for the M73 machinegun, and as well can use the same range facilities. The laser beam is stopped by the cardboard target, or if the target is missed, by the earth, canvas, wood, or stone backstop with no resultant damage. Equally good results have been achieved using the trainer on an indoor range. As used, the laser trainer has the following advantages:
 - a. More reliable. Although the reliability of the Xenon flash tube during service tests did not meet the desired levels, frequent use of the trainer clearly shows it to be very dependable.
 - b. More accurate. The laser trainer has a line of sight firing mode, whereas the M73 machinegun has some dispersion of the ammunition, even at 60 meters, the range used for subcaliber firing. With the laser tank gunnery trainers, the range can be reduced to 10 meters from the training vehicle and still achieve desired results.
 - c. Less expensive. Using the contractor quoted price of \$45.00 per Xenon tube, a rate of .025 cents per burst is well below the cost of frangible ammunition at .20 cents per round.
 - d. More versatile. Because the laser beam is stopped by an opaque material, it can be fired in buildings simply by covering the windows thus, eliminating the need for a large impact safety area.

e. Less time consuming. Because there is no requirement to put pasters over holes in targets, as with the M73 machinegun, more time can be devoted to firing.

*Inclosure removed for sake of brevity

160

Weapons Department
UNITED STATES ARMY INFANTRY SCHOOL
Fort Benning, Georgia 31905

FACT SHEET ON: Laser Device for M16 Rifle

PURPOSE OF PROGRAM/PROJECT:

Under development for possible use in rifle marksmanship training.

DESCRIPTION/EXPLANATION:

1. The device is a two-part eyesafe system consisting of (1) a miniature laser transmitter which is attached to the barrel of the M16A1 rifle, and (2) a detector to score hits. When the trigger of the weapon is squeezed, a laser pulse one-one millionth of a second in duration is emitted down range. If accurately fired, this pulse is received by the detector which is fastened to a standard field-firing silhouette "killing" the target in much the same manner as if it were hit by a round of live ammunition.
2. The laser beam emitted by the attachment provides an accurate simulation of the trajectory of the M16 round. The M16 trajectory is extremely flat out to about 250 meters. The laser beam produces a straight line of sight trajectory with no drop at all so the simulation is almost exact.
3. The prototype system presently under investigation is adaptable to field fire instruction. Obviously, the simulator would not replace all live fire because of the absence of sound and recoil, but it might replace some of it and will offer almost unlimited opportunities for sighting and aiming exercises in which the firer will know whether he is hitting the target.
4. The device was evaluated as a partial substitute for field fire training at Fort Benning and Fort Jackson. This preliminary investigation revealed a need for further testing employing very large samples to adequately determine the complete training value of this device. Such testing would also determine the various applications for the laser training device in Army training programs.
5. Results of testing to date warranted submission of a Draft Proposed Training Device Requirement for a Target Engagement Simulator for the M16A1 Rifle, to CONARC on 7 September 1971. Favorable action on the DPTDR will permit USAIS to obtain 50 prototypes and complete the large scale testing needed to determine a complete basis of issue.
6. A picture of the laser transmitter attached to the barrel of an M16A1 rifle is at Inclosure 1*.

*Inclosure removed for sake of brevity

161

**AUTOMOTIVE DEPARTMENT
US ARMY ARMOR SCHOOL**

PURPOSE

To provide information in the M34 Driver Trainer.

FACTS

1. The US Army Armor School uses M34 Tracked Vehicle Driver Trainers to supplement instruction on driver's compartment familiarization, starting and stopping procedures, and engine and electrical troubleshooting on the M60A1 Tank. The trainer was procured through the US Naval Training Device Center at Orlando, Florida and is operated and maintained according to the provisions of TM 9-6930-200-14, dated November 1965.
2. The driver's compartment of an actual tank is isolated and enclosed, making effective supervision of student drivers difficult. The M34 trainer is openly constructed to facilitate close observation and supervision of driver technique. The trainer is an electromechanical device consisting of a driver's compartment and an instructor's console, both of which are caster mounted for mobility and coupled with intercommunications equipment. Normal and abnormal sounds can be simulated and gage readings reflect the use of the vehicle controls as well as information which can be integrated by the instructor.
3. The trainer driver's compartment is a full-size replica of that found in the M60A1 Tank and contains identical controls and gages to that of the actual vehicle. The electronics assembly which houses the computer assemble, the power supply and the sound system is located behind the driver's seat.
4. The instructor's console provides the facilities for controlling the training exercise. The monitor panel contains gages and indicators which repeat the indications of the driver's instruments and monitors the position of the driver's controls. The console also enables the instructor to present abnormal conditions to the driver.
5. The trainer reduces training time and costs, while avoiding possible injury to personnel or damage to tanks. In the future, a visual display for day or night driving might be added to this trainer which could increase its versatility. Such innovations, which are being explored with the US Naval Training Device Center, could be combined with the use of television and programmed texts to significantly reduce the requirement for actual equipment.

VI EVALUATION

FACT SHEET ON USAWC STUDENT EVALUATION SYSTEM

1. General. The student evaluation system at the US Army War College is tasked to answer the question, "How did the officer perform as a student at the USAWC?" Our student evaluation system, unlike most, lacks the checks and balances of a "valid/objective" academic evaluation because we have no grading system, i.e., no numerical or letter grades are given, no one fails, and no one is the distinguished graduate. We therefore cannot make a purely objective assessment of an officer's academic performance as a "student" while attending the USAWC. Similarly, we feel we are not capable of evaluating the student solely as an "officer," because the Senior Service College Selection Board has already established that criteria for us from a data base far more extensive than ours. Our system then, is geared to assess student officer potential in specified knowledge and functional areas, and to assist assignment officers in selective career management of USAWC graduates.

2. Mechanics. The USAWC student evaluation system is fundamentally a compilation throughout the academic year of input documents (feeder reports) for inclusion in to a formal academic file. Feeder reports are rendered on each student by assigned faculty course and research advisers, seminar moderators, and elective professors, as each student progresses through the academic year and completes his curriculum requirements, i.e., six courses of study, student research papers, seminars, and electives. The feeder reports are both formal and informal. Formal feeder reports are prepared on locally produced forms which are expressly designed to evaluate only the USAWC student. The informal reports are any communication received concerning a student, from almost any source. The formal feeder reports provide a concise evaluation of each student's performance while engaged in an assigned duty during each course of study, e.g., as a committee chairman, assistant committee chairman, committee recorder, or simply a committee member. His oral and written presentations, both formal and extemporaneous are examined and recorded; his ability to relate to his peer group and his willingness to accept the viewpoints of others are closely monitored. Each student's contributions to committee efforts and his perception of key issues, along with many other observations of demonstrated performance, are examined and reported in an effort to objectively evaluate each student's immediate and long range potential, and to isolate specific areas of functional or intellectual expertise.

The informal reports generally provide an evaluation of the complete man as contrasted to his performance during his course of study, his attitudes, noted strengths and/or weaknesses, results of counseling sessions, etc. Informal reports are prepared in many different formats by the student's faculty counselor, by other interested faculty members, or by other individuals who comment on a student's performance in other than an academic role (e.g., speaking to a civic club). Together with the

formal reports, these informal comments develop a composite picture of the student. All these reports are placed in the student's academic file, and at the end of the academic year completed student academic files are delivered to assigned student faculty counselors. The faculty counselor is a member of the faculty permanently assigned to one or more designated students. He offers his students assistance, guidance, and counseling throughout the academic year concerning the College curriculum, policies and procedures, and personal matters. Based on a careful review of student academic files, and personal knowledge of his students, the faculty counselor will prepare a draft final academic efficiency report for each of his assigned student counselees. The draft academic efficiency reports are then finalized by the Deputy Commandant on DA Form 1059 for signature by the Commandant. The final academic efficiency reports, like the feeder reports, are prepared in such a manner to clearly provide reviewing officers a concise evaluation of each USAWC student's performance during the academic year and a clear picture of the student himself. The final academic efficiency report evaluates a student's performance in all assigned leadership roles, his oral and written presentations, his demonstrated committee participation, his efforts in in-depth research, analysis and understanding of key issues, his electives participation, and his personal and professional qualifications in specific areas of expertise. Each student's contributions in post and community affairs activities are also reflected.

The final product of the USAWC student evaluation system is a concise assessment of each graduate's potential in a specified knowledge or functional area, and a guide to assist assignment officers in selective career management of each graduate. All evaluations made throughout the above system are made in comparison to the student class members only, not in relation to all colonels or lieutenant colonels the evaluator may have known. Thus grades of average, mean average in relation to the highly select members of the students class.

EVALUATION DIVISION
DIRECTOR OF INSTRUCTION
US ARMY ARMOR SCHOOL

PURPOSE

To provide information on the evaluation and motivation of Armor Officer Advanced Course (AOAC) Students.

FACTS

Last fall the Armor School augmented the evaluation of AOAC students by evaluating, in the narrative portion of the Academic Reports, not only the Academic performance of the student but also his motivation, initiative, outside activities and anything else that provides the "whole man" picture. Input is solicited from instructors, members of the Staff and the class leader. The Faculty Advisor receives all input and prepares the narrative description of the Academic Report. The report is then reviewed and signed by the Faculty Advisor's Department Director. It is then reviewed by the Student's Battalion and Brigade Commanders. The Director of Instruction reviews and signs the top and bottom 20% of the class, in addition the Assistant Commandant reviews and signs the top and bottom 10%. The Director of Instruction and Assistant Commandant review and sign any other reports that are particularly noteworthy, while the Commandant reviews and signs the Distinguished and Honor Graduates' reports.

**DIRECTOR OF INSTRUCTION
US ARMY ARMOR SCHOOL**

PURPOSE

To provide information concerning the Officer Comprehensive Evaluation (OCE) that is to be administered to students in the Advanced Course at the Armor School effective with Armor Officer Advanced Course (AOAC) 3-71.

FACTS

1. On 1 March 1971, an ad hoc committee was formed consisting of one Colonel and six Lieutenant Colonels all of whom were graduates of the Command and General Staff College (CGSC). This committee was charged with the responsibility to develop the operational concept for a comprehensive evaluation of AOAC students. The committee, working on a part time basis and using a CGSC tactical map problem as a base vehicle, developed a broad scenario with supporting corps, division, and separate regiment operation orders from which specific academic requirements would be drawn.
2. On 7 July 1971, the work of the committee was turned over to the academic departments and a full time project officer was tasked to design and prepare the actual evaluation using the material provided by the ad hoc committee as a guide in the development of individual examinations.
3. At a Concept Board, 30 July 1971, chaired by the Assistant Commandant the departments proposed and received approval to proceed with the detailed planning of the evaluation concept. The evaluation, to be administered approximately four weeks prior to graduation, would consist of six separate parts to be given over a five day period. The individual parts of the evaluation follow:
 - a. Part One - Leadership/Writing. The student cast in the role of the executive officer of an organization is tasked to analyze written data that describes a serious incident with racial overtones. His task is to analyze the situation and determine what he considers to be, appropriate corrective actions. He is to communicate this information to the Commander in writing using an appropriate format (total time - three hours).
 - b. Part Two - Materiel Readiness. Again, in the role of an executive officer, the student is required to inspect selected items of equipment and as an organization level supervisor determine their state of readiness. In addition, he is to analyze selected maintenance records and training programs to determine their correctness

and identify areas of poor management (time - four hours).

c. Parts Three, Four, and Five - Tactical Examinations. The student is tasked to perform in a variety of command and staff positions from company/troop to brigade/regiment and as an assistant staff officer at division level. Placed in a given tactical situation he is required to provide his solutions to problems presented to him. These examinations are administered during three morning periods. The first day is defense oriented and emphasizes the integration and coordination of combat support and combat service support. The second day is offense oriented with similar requirements while the third day deals primarily with internal defense operations (time for each examination - three hours).

d. Part Six - Speaking Exercise. As a division level staff officer the student is required to prepare and present a ten minute information type briefing for a general officer based upon written documents that he will receive approximately one hour prior to the scheduled briefing time. His specific task is to analyze the information provided, select the appropriate information, and present a clear, concise briefing following previously taught procedures (time - two hours).

4. Because of the importance associated with the OCE, it has been assigned a total academic weight of 300 points out of a total 1000 points possible in the course of instruction. These academic points are allotted to the various parts of the evaluation in the following manner:

Part One - 60 Points
Part Two - 60 Points
Part Three - 55 Points
Part Four - 55 Points
Part Five - 40 Points
Part Six - 30 Points

5. A report on the results of the initial administration of the OCE to AOAC 3-71 will be prepared, in accordance with agreements of the Directors of Instruction/Education Advisors Conference held at Headquarters CONARC, 26-29 April 1971. This report will be provided to CONARC schools for their information.

FACT SHEET
ON
EOBC "GO/NO-GO" GRADING SYSTEM

A. STATEMENT OF PROBLEM

The EOBC student must become competent in certain identifiable areas if he is to function satisfactorily as an Engineer Platoon Leader. These areas must be identified and controls established to insure his proficiency in each of them.

B. USAES PROGRAM

1. In order to insure that all graduates of the Engineer Officer Basic Course are able to meet the minimum job requirements, he must, in addition to obtaining an overall grade average of 70% or higher, demonstrate his competence for scoring 70% or higher on all examinations in the subject areas:

- a. Leadership, Staff, Weapons, Communications Examination
- b. Maintenance Management and Supply Examination
- c. Combat Engineer Practical Examination
- d. Leadership Subjects--a composite score based on several varieties of input (e.g. evaluations, Leadership Reaction Course, etc.)
- e. Map and Aerial Photography Qualification Examination (MAPQE)

2. Students who fail to achieve a minimum score of 70 on the "MAPQE" are required to take and pass the Map Reading Extension Course and to take a reexamination of the "MAPQE" and receive at least a grade of 70%.

3. In general, students who fail to achieve a minimum grade of 70 in any of the above listed areas will be referred to the Academic Review Committee of the teaching department responsible for the instruction in the failed subject. The committee may recommend reexamination or referral to the Assistant Commandant (with appropriate recommendations).

4. It should be noted that the EOBC student must also complete successfully the other current prerequisites for graduation (e.g., collateral Reading Program, Oral presentation on military history, current PT Test, etc.)

140

OFFICE OF THE DIRECTOR OF INSTRUCTION
UNITED STATES ARMY INFANTRY SCHOOL
FORT BENNING, GEORGIA 31905

FACT SHEET ON: The Use of Performance Examinations in Evaluating Students

PURPOSE OF PROGRAM: To provide a series of practical exercises that test student ability to perform selected critical skills and tasks.

DESCRIPTION:

1. USAIS recognizes performance testing as one of the most vital areas of evaluation. Consequently, criterion referenced performance testing has been integrated where ever possible in resident courses of instruction in lieu of traditional written examinations. The purpose of performance testing is to determine, through go/no-go grading, whether the student has achieved the established standards of performance (criteria) prescribed by the training objectives. It is intended to determine whether he is able to perform, at the required level, skills and tasks taught during the course, thereby providing true feedback on instructional effectiveness.
2. As USAIS courses are Systems Engineered, areas appropriate for performance testing are identified. The tests are developed accordingly. See Incl 1 for details.
3. An example of USAIS performance testing is the Military Stake Examination which is the climax of the Infantry Officer Basic Course, the first leadership course to be Systems Engineered at the Infantry School. The examination consists of eight (8) hours of intensive performance testing during which the student is asked to negotiate 28 stations, each of which tests him on his ability to solve a series of "hands-on" or practical exercises, encompassing nearly all the key skills taught during the course. The Infantry School has learned much from this examination with respect to the effectiveness of instruction.

671
FACT SHEET

ATSSS-I-OP

SUBJECT: FTX Performance Testing of SOBC Students

PURPOSE: To outline Officer performance tests that have been conducted to date, and to describe on going actions for improvement.

FACTS:

- 1. Trial Performance Tests.** Performance testing of students in the Signal Officer Basic Course FTX began on 5 March 1971, and continued during each FTX through June 1971. During this trial period, the basic evaluation approach involved cadre observation of student performance using checklists of performance requirements. Although the basic procedure is considered valid, the current SOBC Program of Instruction is not designed to provide sufficient "situational training" in a field setting to groups of officers. Specific limitations include limited time (36 hours) in the FTX in relation to the number of students and available training resources; and, the lack of specific behavioral objectives which relate directly to job performance requirements. For these reasons the trial program was discontinued under the present Program of Instruction.
- 2. On Going Actions.** Systems Engineering of the SOBC is currently underway and tentatively will be completed during 3d quarter of this fiscal year. This curriculum design process will provide specific behavioral objectives and criteria for student performance in a field setting. The planned evaluation approach involves "job-sample" testing in which each student is presented a job situation to which he must respond in a predetermined manner. In field situations where teamwork is involved, each student will be evaluated on representative, sample "critical individual actions" pertinent to the team mission success. Further study will then be made in the area of performance testing groups of officers in a FTX.

FACT SHEET ON PERFORMANCE TESTING

I. GENERAL:

With the emphasis of training developments aimed at greater utilization of "hands-on" exercises, the U.S. Army Transportation School has developed and implemented the Performance Specific (PS) Testing concept for the MOS 67A10 apprentice phase of the aircraft repairman's course and for the shop operations portion of the Aviation Maintenance Officer Course (AMOC). PS Testing provides an objective means of evaluating the individual student's comprehension of essential maintenance procedures and his proficiency in accomplishing manual tasks common to aviation maintenance. Additionally, the student's performance on these exercises serves as an early indicator of his future potential in this highly technical specialty field.

II. CURRENT STATUS:

A. The 67A10 test consists of a brief objective examination followed by a performance "hands-on" examination consisting of eight stations. At each of these stations, the student performs the tasks required, to the best of his ability, and is graded on both his adherence to proper procedure and successful accomplishment of the task. The test requirements of these stations vary from the use of basic and special purpose hand tools, i.e., the torque wrench, to trouble shooting and correcting malfunctions programmed into electrical trainers that represent a basic aircraft electrical system. As the apprentice course is the prerequisite for the continued training of the aviation student, the Performance Specific Evaluation Program and allied instruction permits these students to obtain a basic aviation maintenance knowledge of the more sophisticated instruction they will receive in their "follow-on" courses. This in turn results in more highly trained and qualified aviation maintenance students being assigned to the operational units in the field.

B. The 19-hour shop operations performance test given to AMOC students consists of eight stations through which each student progresses on a "round-robin" basis. Each station is set up to simulate the different shop areas found in an Aviation Direct Support Maintenance Shop and is an extension of previous classroom instruction. The stations include: quality control; production control; technical supply; powertrain; rotor blades and propellers; engines; airframe repair; and hydraulics, instruments and electrical. At each station, an instructor briefs the student on requirements and provides general guidance. The student is given a requirement describing the situation and listing the problems to be solved. For example, students at the Technical Supply station complete exercises in the four major sections of a maintenance unit's technical supply. These include requisitioning,

editing, stock records and warehousing. Each area presents routine problems, which occur daily, for the student to solve. When the student completes the station, he is briefed on his performance. At the end of the exercise, time is allotted for student critique. Critiques are both verbal and written, and provide data for improving the exercise.

C. A series of performance tests is given to the students in the Aviation Maintenance Officers Course, Phases II, III and IV. These are test pilot courses for the AH-1G/UH-1, CH-47 and OV-1 aircraft. Again, the tests follow classroom instruction in specific maintenance areas for the aircraft. The student performs the normal maintenance checks required of a test pilot. He notes discrepancies (programed into the aircraft), analyzes these discrepancies, and prescribes corrective action to maintenance personnel. The instructor has a grading check list which he uses to evaluate the student's performance. All students in the Phase II Course are tested nine times, each test lasting 90 minutes. Improvement with each succeeding test is checked by the instructor as well as actual performance on each test.

174

FACT SHEET ON PROFICIENCY EXEMPTION PROGRAM

I. GENERAL:

Transportation officers come from many backgrounds and duty positions to attend TOAC. Some have had experience in one or more areas of Army transportation but have had little experience or training in other areas except for instruction given in the basic course. In an effort to provide a more challenging and flexible curriculum, the Transportation Officer Advanced Course offers a Proficiency Exemption Program (PEP). The program enables a student to obtain advance credit for portions of the curriculum which might duplicate prior education, training, experience or expertise. If a student earns advance credit in a certain subject area, he is released from attending classes in that subject and is encouraged to pursue a course of independent study.

II. CURRENT STATUS:

A. The areas in which the PEP option is offered are listed in Inclosure 1.* If a student is interested in obtaining advance credit, he submits a formal request (inclosure 2)* to participate. He may select more than one area for advance credit. His request must contain a complete description of prior experience and/or training related to the area(s) for which he seeks advance credit. This description should include education (military and civilian), experience or training with business or industry, duty assignments, correspondence courses and any other appropriate experience. The request is reviewed by the Transportation School and the applicant notified of the decision. If the decision is favorable, the Transportation School sends the student material in the advance credit area(s). While this material does not contain all information covered in the examinations, it affords an excellent means of preparing for them. Examinations are offered during inprocessing.

B. If the student obtains a grade of 80% or higher on an examination, he has a choice: he may accept the examination score as his grade for the advance credit subject and be given free time; or he may select independent study in an area of his own choosing. Each qualified PEP student is encouraged, but not required, to select independent study.

C. The student choosing independent study selects a subject (for example, "Use of Air Cushion Vehicles."). The Transportation Employment and Military Arts Department designates a subject-area specialist to serve as the PEP student's project advisor. Together, they plan a mutually acceptable course of independent study. The project advisor works with the student until he completes his project and then grades the results.

*Inclosures removed for sake of brevity

175

D. Participation in the Proficiency Exemption Program is optional. The student may discontinue at any time provided he has not missed resident instruction in his advance credit area.

176

FACT SHEET

SUBJECT: Validation Program in the Advanced Course

PURPOSE: To explain the validation program for advanced course students at the US Army Signal Center and School

FACTS:

1. There are five areas in which we afford a student the opportunity to exhibit prior knowledge or experience, with the ultimate aim of excusing him from certain hours of instruction if he shows himself sufficiently proficient. Proficiency is determined by an examination in some cases, and by an interview and a records check in others. The areas concerned are Electronic Fundamentals, Communication Center Operations, Automatic Data Processing, Operations Research/Systems Analysis and Logistics. There were a total of 777 American students in Classes 70-1 through 72-2. Of these, 35 students or 4.5% inventoried out of one or more of these subject areas.

2. The student who inventories out of certain hours of instruction is given the option of selecting an area of study which is of particular interest to him. This may take the form of enrollment in an additional classroom elective subject or in an approved non-resident course. The student may also choose to work on an independent research paper or he may devote his time to a special project. A recent example of this is one student who has already completed some advanced graduate work in Operations Research/Systems Analysis and who worked jointly with the Automatic Data Processing Division and the School's Television Division to produce two training films in OR/SA.

3. The Electives Branch, the Operations Division of the Department of Command Communications and the student's faculty advisor are all kept apprised of the student's progress.

FACT SHEET
ON
THE VALIDATION PROGRAM IN THE ADVANCED COURSE

A. STATEMENT OF PROBLEM

Students coming from a great variety of service backgrounds have such a wide range of experience that it is difficult to provide a course that is all new to everyone. The problem was to find a way to keep students from repeating areas in which they were proficient and to find adequate substitutions of material.

B. USAES PROGRAM

The EOAC curriculum includes subjects for which a specified level of knowledge is considered essential for all students. Although every effort is made to guard against unnecessary repetition in curriculum coverage, the criteria for selecting students is such that a few will have been exposed to the material by prior education or experience. When a student feels that a block of instruction would be repetitious, he may apply for advance credit by means of an interview and a validation examination.

Responsibilities for the program are:

1. Director of Instruction has overall responsibility and monitors program.
2. Student identifies areas he believes he is qualified to validate and applies for validation.
3. Division Chiefs determine whether probable qualification for advance credit exists by interviewing student.
4. Division or Branch Chiefs administer validation examinations to students at time appointed by Department Director and provide results within 1 day.

Participation in the program is voluntary. Students wishing to participate must initiate a formal request for advance credit. Subjects for which the student has satisfactorily passed the validating exam and received advanced credit will not be graded nor included in computation of overall grades.

Advanced credit for portions of the core curriculum produces free time which the student may use to pursue individual courses of action. Students are not required to pursue an individual elective in lieu of the classroom time reduced by advanced credit, however, such action is encouraged. Although a student is given advanced credit, he may, at his option, monitor any portion of the instruction from which he was excused in order to obtain "updating information."

178

U. S. ARMY FINANCE SCHOOL

FACT SHEET

FINANCE OFFICER ADVANCED COURSE (FOAC) VALIDATION PROGRAM

1. The purpose of the FOAC validation program is to enable students who are proficient in selected subjects of the core curriculum to study other areas of interest in lieu of classroom attendance during these blocks of instruction.
2. Validation tests for the FOAC are administered on a voluntary basis for students who desire to validate a block of instruction. The determination as to whether the student is approved for validation is made by the Finance School based upon the validation test score and a review of the student's military/civilian job experience and education.
3. Students who validate a specific block of instruction are required to take a nonresident course which equals or exceeds the number of core curriculum hours from which he is exempted. The nonresident course must be selected from the courses offered in the FOAC Elective Program Brochure.
4. For the block of instruction validated, students receive a grade equal to the highest student grade obtained in the exempted block. This procedure insures that a student's overall class standing is not adversely influenced as a result of his having validated a block of instruction. The grade obtained in the nonresident course is not computed in the overall course grade; however, students must attain a satisfactory grade in the nonresident course to qualify for academic honors.

179

U. S. ARMY FINANCE SCHOOL

FACT SHEET

EXEMPTED TRAINING IN THE FINANCE OFFICER BASIC COURSE (FOBC)

1. In our Finance Officer Basic Course Program of Instruction we teach common subjects and mandatory subjects prescribed by CONARC and Department of the Army. The primary objective of this block of instruction is to provide the basic officer with a general knowledge of command and administrative procedures at the small unit level. These subjects are tailored to prepare newly commissioned Finance Corps officers for their first duty assignment.
2. Graduates of USMA or OCS, branch transferees with two or more years active duty, and Regular Army officers joining the Finance Corps after completion of their combat arm detail have a level of military science knowledge equal to or exceeding that offered in the Finance Officer Basic Course. They are exempted from this block of instruction. All military science subjects are blocked at the beginning of the course. This permits a saving in training time for officers in the foregoing categories since they do not report till 2 weeks after the course opening date. Only Finance Corps officers who receive reserve commissions through the ROTC program are required to attend the military science portion of the course.
3. During FY 71, 23 percent of the total Basic Course input was exempted from the military science block of instruction.

FACT SHEET
ON
USE OF THE DIAGNOSTIC TEST IN THE ADVANCED COURSE

A. STATEMENT OF PROBLEM

In recent years, primarily as a result of a large input of OCS officers, the Engineer School noted that many fine officers entering the Advanced Course lack a proper math background as far as being able to master the required mathematical problems in the course. Since this shortcoming could jeopardize the officers' chances of satisfactorily completing the course and the School did not think it wise to lower the academic standards, this diagnostic test program was instituted.

B. USAES PROGRAM

When orders are received at the Engineer School indicating an officer will attend the Advanced Course he is mailed an advanced information packet. In the packet he is advised of the importance of a firm foundation in mathematics and given a math examination to take and return to the School for grading.

1. If, after grading, the School feels the officer will have difficulty in the course, he is urged to complete a correspondence course or a self-study course such as the Schaums Outline Series. The way to apply for the correspondence course is through USAES Department of Nonresident Instruction or buy the recommended text and materials by mail through the School Bookstore.

2. During the first few days of inprocessing, all students are given another diagnostic test in math to determine if deficiencies still exist. At this time, two additional tests are given, one for effective writing and one for map reading. These are to insure students who are deficient in these areas will be able to strengthen themselves in order to satisfactorily complete the staff study and articles for publication requirements of the course, as well as participate actively in the many map exercises throughout the course. Students who are found to be deficient in math are required to take the resident elective in basic math offered in the first semester. Those deficient in writing or map reading are required to take correspondence courses.

3. This program has helped to improve the quality and quantity of knowledge imparted to the student by giving him more confidence in his ability to complete the course. It also allows him time to strengthen his math background without having to do so while struggling with the math problems in the course.

EVALUATION DIVISION
DIRECTOR OF INSTRUCTION
US ARMY ARMOR SCHOOL

PURPOSE

To provide information on the attendance of Armor Officer Advanced Course students in Special Subjects classes.

FACTS

1. The Special Subjects classes are review classes covering Automotive, Weapons, Communication, Reading & Listening Improvement, and Map Reading.
2. Inventory examinations are given to all Advanced Course students at the beginning of the course and those failing to achieve an acceptable score are required to take one or more Special Subjects. Comments at Inclosure 2 thru 5.
3. Attached at Inclosure 1 are the percentages of officers, by class required to take Special Subjects. Inclosure 2 through 5 graphically illustrate these percentages by subject.

5 Incl *
as

* Inclosures 3 and 5 removed for sake of brevity

AOAC STUDENT PARTICIPATION IN SPECIAL SUBJECTS

CLASS	STU	AUTMV	COMM	WPNS	FO	MAP READING
1-69	119	55.4	44.5	64.7		
2-69	121	49.5	14.0	66.1		
3-69	127	14.9	27.5	62.9		
4-69	114	62.3	13.5	33.3		
1-70	115	26.0	27.8	61.7		
2-70	126	80.8	54.4	76.8		
3-70	124	73.3	20.9	77.4	19.3	
4-70	128	53.9	24.2	77.3	24.2	
1-71	127	60.6	18.8	58.2	11.8	57.6
2-71	124	59.6	25.8	54.0	13.7	64.9
501-71	97	67.0	39.1	69.0	27.8	48.5
3-71	108	76.8	38.8	63.8	31.4	62.0
4-71	124	55.6	0	73.3	11.2	39.5
1-72	92	35.8	0	65.2	28.5	46.2

**AUTOMOTIVE DEPARTMENT
US ARMY ARMOR SCHOOL****PURPOSE**

To provide information on inventory testing of Armor Officer Advanced Course (AOAC) students.

FACTS

1. The purpose of the Automotive Department's objective-type inventory examination is to measure the Advanced Course student's comprehension of the following automotive subjects: Automotive Systems and Components, Vehicle Maintenance, Recovery Vehicle Maintenance and Vehicle Recovery Procedures.
2. Students who fail to demonstrate satisfactory knowledge of automotive subjects attend a special course of 22 hours which reviews the subjects listed above. Special instructional consideration is given to any weak areas that are indicated by the examination. At the end of the special subjects course, another examination is given to evaluate the effectiveness of the instruction.
3. Students who attain a satisfactory score on the Inventory become free to pursue enrichment studies on an elective basis.
4. The strengths and weaknesses of students seem to be directly proportional to experience and the adequacy of review prior to the examination. In fact then, current use of the inventory examination is valid as it provides remedial instruction to those who need it, but also releases those who do not, to pursue advanced studies, thus enhancing professionalism.

184

LEADERSHIP AND EDUCATIONAL DEVELOPMENT
DEPARTMENT
US ARMY ARMOR SCHOOL

PURPOSE

To provide information on inventory testing of AOAC students.

FACTS

1. All students are given a Cooperative English Test from the Educational Testing Service, Princeton, N.J. Students not receiving a satisfactory score must enroll in a 50-hour elective course in Review English. Students receiving a marginal score are advised to enroll in the course.
2. All students are given the Nelson Denny Reading Test from the Houghton Mifflin Co and the Brown Carlsen Listening Comprehension Test from Harcourt, Brace and Jovanovich. Students not receiving a satisfactory score are required to enroll in a 30-hour special subjects course in Reading and Listening Improvement.
3. All students are given the Princeton Pre-Engineering Ability Test to determine their mathematical ability and only students achieving a satisfactory score are permitted to enroll in the Nuclear and Chemical Target Analysis Course. As an exception, Artillery officers are required to take the course, and Infantry officers are not denied this training, but are advised that the test is an indicator of probability of success in the Nuclear and Chemical Target Analysis Course.

195
DEPARTMENT OF THE ARMY
UNITED STATES ARMY INFANTRY SCHOOL
FORT BENNING, GEORGIA 31905

FACT SHEET ON: Use of Diagnostic Tests in conjunction with Electives and self-paced instruction.

PURPOSE OF PROGRAM: To assist in adjusting instruction to the background of individual students.

DESCRIPTION/EXPLANATION:

1. The intent of the USAIS Diagnostic Testing Program is to eliminate unnecessarily repetitive instruction by identifying students who, upon entry to the course, possess a degree of proficiency that qualifies them for exemption from selected core curriculum subjects and enrollment in Advanced Instructional Projects, Self Study Projects, Electives, etc., for personal and professional enhancement.
2. The USAIS Diagnostic Testing Program is presently an integral part of 2 courses of instruction. They are the Infantry Officer Advanced Course (IOAC), which contains 10 diagnostic examinations, and the Infantry Officer Basic Course (IOBC), which contains 3 diagnostic examinations. Inclosure 1 describes the IOAC Diagnostic Testing Program; Inclosure 2 describes the program in the IOBC.
3. Diagnostic examinations contain representative samples of end-of-block and end-of-course test questions. The standards for exemption (minimum passing score) for each examination are determined by the respective Department Directors.
4. The number of students certified as proficient prior to classroom instruction by means of Diagnostic Testing varies from test to test owing to differing degrees of student experience. For example, very few IOAC students (approximately one to two percent) pass such tests as CBR or Unit Readiness, while a significantly greater number (approximately 35 to 40%) pass Company Tactics and Maintenance Management.
5. As courses are systems engineered, appropriate subject areas in which to expand diagnostic testing are expected to be identified. Additional Diagnostic Examinations will be developed, accordingly.

2 Incl
as

186

IOAC DIAGNOSTIC TESTING PROGRAM

1. There are 4 mandatory diagnostic examinations given to IOAC students. Their purpose is to measure the level of overall knowledge with which the student enters the course. They do not exempt him from any instruction. On the other hand, if he fails either the English or the Map and Aerial Photo Diagnostics, he must take remedial courses during the IOAC. The 4 mandatory diagnostic tests are:

- a. Military Knowledge Diagnostic Test.
- b. English Diagnostic Test.
- c. Map and Aerial Photo Diagnostic Test.
- d. Reading Proficiency Diagnostic Test.

2. There are 6 optional diagnostic examinations. If the student so chooses, he may take these examinations at the beginning of the course. If he does not elect to take the exams, he must take the instruction which is part of the core curriculum. If the student takes any of the diagnostic tests and passes, he will be declared exempt from the instruction covered within the diagnostic test and receive full credit for the final exam in that subject. However, if he passes, he may still, of his own volition, monitor the course. The 6 optional diagnostic examinations are:

- a. Company Operations.
- b. Maintenance Management.
- c. Unit Readiness.
- d. CBR.
- e. Training Management.
- f. Infantry Communications.

3. Self-paced instruction is another concept which has been developed for use in the IOAC in association with the Diagnostic Testing Program and Company Operations instruction. After being administered an optional Company Operations Diagnostic Test, those students who fail, as well as those who choose not to take the Diagnostic Test, are given a Self-Paced Instructional Test (SPIT) and at a later date are again tested. Thus far, results indicate an 8% increase in the number of students who pass the second test using the SPIT method over those who have received regular classroom instruction. The mechanics and procedures of the program are documented at TAB M.

81

IOBC DIAGNOSTIC TESTING PROGRAM

1. The IOBC Diagnostic Testing Program consists of the following 3 tests:
 - a. A 3 hour, 132 question objective examination which tests material relating to 12 core curriculum subject areas.
 - b. A 2 hour, Military Stakes type, performance oriented Weapons Examination which tests material relating to 8 core curriculum subject areas.
 - c. A 4 hour, performance oriented, outdoor, optional Map Reading Diagnostic Examination.
2. Students who pass portions of the diagnostics will be excused from, and receive full credit for, the corresponding blocks of instruction in the core curriculum.
3. Students who are excused from 10 or more hours of instruction must participate in the Advanced Instructional/Elective Program.

188

FACT SHEET ON DIAGNOSTIC TESTING

1. The concept of diagnostic testing is employed in both the Field Artillery Officer Basic Course (FAOBC) and the Field Artillery Officer Advanced Course (FAQAC). In FAOBC diagnostic tests covering map reading and small unit tactics are the two tests that are administered prior to instruction in these areas. If a student scores 90% or better on these tests, he is excused from instruction in these areas and is offered instruction in alternate academic subject areas. Experience indicates that test performance above the 90% level is exceedingly rare for FAOBC students.
2. A set of diagnostic tests covering the major objectives of instruction for FAQAC is administered to FAQAC students during the first two weeks of the course. Results on these tests are used to identify areas in which officers are already proficient. To avoid redundancy in instruction, an officer scoring high in any particular academic subject area is offered instruction in an alternate academic subject area.
3. Both testing programs (FAOBC and FAQAC) will be reassessed during the upcoming POI revisions for the two courses. At that time, any necessary changes in the testing program resulting from the restructured POIs will be determined and initiated.



187
DEPARTMENT OF THE ARMY
UNITED STATES ARMY MISSILE AND MUNITIONS CENTER AND SCHOOL
REDSTONE ARSENAL, ALABAMA 35809

FACT SHEET

SUBJECT: Feedback Program used to Evaluate Effectiveness of Officer Training Department MOS Producing Courses

1. PURPOSE: To implement a feedback program that will accomplish the following:

- a. Satisfy the requirement of phase 7, Quality Control, of the systems engineering process. [Paragraph 2a(7), CONARC Regulation 350-100-1]
- b. Use empirical data to the maximum extent to adjust program of instruction content.
- c. To verify the validity of program of instruction subjects.
- d. To optimize the hours devoted to program of instruction subjects based on field requirements.

2. DISCUSSION: A five column questionnaire was developed consisting of functional areas, skill level, required skill level, task frequency and degree of importance. The questionnaire requires the recipients to check appropriate blocks.

a. Column A, Functional Area: 273 MOS related tasks, skills or knowledges are functionalized into seven functional groupings consisting of 31 action elements that broadly define the officer's responsibilities. This technique of functionalization merely stratifies action elements into logical categories in broad terms, yet definitive enough for clear comprehension. As a result, the time required to complete the questionnaire could be minimized thereby facilitating a greater number of returns.

b. Column B, Skill Level: The recipient of the questionnaire is asked to make an estimate of his skill level in each applicable area upon arrival in his unit and after an initial orientation period. Skill levels are defined and equated to the levels of knowledge outlined in paragraph 24, CONARC Regulation 350-1, Annex Q [3 = qualified, 2 = working knowledge and 1 = general knowledge].

c. Column C, Required Skill Level: This column requires the recipient to assess the required skill in each area to insure effective job performance. This assessment is made after he has been on the job for a minimum of six months.

d. Column D, Task Frequency: Frequencies are defined as twice weekly (3), monthly or more but less than twice weekly (2), less than monthly (1) and never (0).

e. Column E, Degree of Importance. This column requires the recipient to determine the degree of importance in which each task makes demands on his time. Degrees of importances are vital (4), necessary (3), routine (2), minimal (1) and none (0).

3. APPLICATION:

a. Questionnaires are distributed geographically in a quantity that corresponds with the actual geographic dispersion of the MOS by TOE and TDA. This method of distribution insures that the POI content will not be geographically oriented and that it realistically represents worldwide training requirements.

b. Confidence coefficients that are acceptable based on sample size must be computed when determining distribution. Experience has borne out that a 50% return of all questionnaires disseminated is considered good. Coefficients of 90% with a \pm 10% error factor are satisfactory for validating the sample.

4. ANALYSIS: All data are consolidated for ease of computation.

a. Data in Columns B and C are averaged and used for two purposes.

(1) Data in Column B is compared with the current POI to verify that the POI does in fact teach to the working knowledge level. e.g., If the average of this column is 1.87 while the POI assumes to teach to the working level of knowledge (2.00), this comparison is favorable within the limits of the sample and no change is necessary.

(2) The average of Column C is used to compare field demand training versus current POI training. e.g., If the average of Column C is 1.37 and the POI equates to 2.00, overtraining is evidenced based on field needs and the length of the POI must be reduced.

b. Columns C, D and E are ranked in relative importance by deriving overall percentages for each. These percentages are derived by multiplying the total responses in each column by the appropriate digit (4, 3, 2, 1, 0), totaling the results and dividing by the summation of computed totals for all columns.

e.g. Responses x Weighting Factor for Column C
Summation of Responses x Weighting Factor
for Column C, D and E

$$= \frac{5021}{13473} = 37\%$$

By breaking out the subjects in the POI into functional areas and converting the total time devoted to the area into percentages and using the procedure outlined above for each column (C, D, E) separately, a percentage comparison of time allotted for training for a specific functional area versus field requirement time can be made. If disparities exist outside the limits of the sample, adjustments are necessary in POI training time.

e.g. Responses x Weighting Factor for Column C for one
Functional Area
Responses x Weighting Factor for Column C for all
Functional Areas

$$= \frac{944}{5021} = 18.7\%$$

If the percentage of time in the POI devoted to the same functional area equals 20%, no adjustment is necessary. The attached example depicts the application of this procedure.

5. RESULTS:

- a. Current POI length can be verified as adequate or inadequate.
- b. Identify new and obsolete training requirements.
- c. Realign the emphasis in functional areas to coincide with field requirements.
- d. Improve and update MOS job descriptions.
- e. This system is easily adaptable to automation when dealing with large numbers of personnel.

FEEDBACK DATA CONSOLIDATION

172

Functional Area	B	Skill Level	Required Skill Level	Task Frequency	Degree of Importance				
					1	2	3	4	5
	3	2	1	0	3	2	1	0	3
	1.82			1.78					
POI RETURNS				37%			23.6%		39%
AMMO SUPPLY	18%	20%	136	250	73	41	123	250	52
AMMO STORAGE	28%	16%	146	223	86	45	133	205	77
CL. V OPNS	20%	16%	106	208	107	59	127	191	79
SECURITY	.5%	7%	40	96	46	10	41	95	33
MAINT & SURV	5%	16%	76	236	119	59	87	198	104
TRANS	15%	14%	105	156	89	42	90	177	61
SPEC AMMO	13%	11%	56	123	59	22	101	110	34
TOTALS	665	1292	579	278	702	1226	463	433	439
							544	782	1069
							509	611	609
							611	460	476
							748		

102

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INFANTRY SCHOOL
Fort Benning, Georgia 31905

FACT SHEET ON: Use of Confidence Questionnaires in Evaluating Instruction

PURPOSE OF PROGRAM/PROJECT:

An aspect of evaluation of courses of instruction

DESCRIPTION/EXPLANATION:

1. The evaluation of instruction at USAIS involves an analysis of data obtained from a multiplicity of instruments designed to elicit information from all available sources. From an analysis of data thus obtained, valid judgments can be made concerning the effectiveness of courses of instruction in preparing the course graduates to perform in the specialty or duty for which trained.
2. One of the instruments used in the evaluation process is the Confidence Questionnaire. This questionnaire is designed to ascertain the degree of confidence of former students in their ability to perform duties subsequent to graduation from courses of instruction at USAIS. Results obtained from this instrument are correlated with other information to arrive at sound, logical conclusions concerning the overall effectiveness of the courses.
3. The Confidence Questionnaire was first used at USAIS in the evaluation of the Experimental Infantry Officer Basic Course (EIOBC) conducted during the period 9 July to 18 December 1970. Results obtained were correlated with results from other instruments and conclusively proved the direct relationship between academic performance and quality of instruction on one hand, and graduate confidence on the other. A copy of the Confidence Questionnaire used in the EIOBC Evaluation is at Inclosure 1*.

*Inclosure removed for sake of brevity

174

FACT SHEET
ON
QUALITY CONTROL

A. STATEMENT OF PROBLEM

To provide School personnel with meaningful training quality control indicators.

B. USAES PROGRAM

The Quality Control Program at the Engineer School consists of four subprograms. These programs will be addressed individually in the following paragraphs.

1. Examination Review and Analysis. All examinations are reviewed annually on a scheduled basis. If changes to the tests are made between these annual reviews, these changes are reviewed by the Quality Control Division prior to the use of the examination. This review of a change establishes a new anniversary date. Detailed test item analysis is made at the time of annual review and 6 months later. Review and analyses may be made at any time for special reasons. Analyses of test results are made on a grade distribution curve and listing of difficulty indices and discrimination indices. (Incl 1)*

2. Instructional Monitoring. Instruction is monitored on a continual basis by senior field grade officers throughout the School. Each Lieutenant Colonel and above is required to monitor three hours of instruction per week with reports rendered to the Director of Instruction. Special monitoring under the auspices of Quality Control Division is accomplished as follow-up to student opinion surveys, at the request of the teaching department, in response to high attrition rates, and on a routine basis. A sample report resulting from monitoring by the Quality Control Division is inclosed. (Incl 2)*

3. Student Opinion Surveys. Student Opinion Surveys are used to obtain the students' assessment of the learning situations. These surveys are in two forms--Block Surveys and Segment Surveys. Blocks consist of groups of lessons having common objectives while segments consist of groups of blocks of related subject matter. Segments and blocks for a typical USAES Course (62B20) are listed in Inclosure 3. Block surveys are on a sample basis surveying approximately one-third of all classes. Segment surveys are conducted on 100% of all classes. The rating sheets used for both surveys are found in Inclosure 3*. An index system is employed, with the index ranging from 1.00 to 4.00 and with a School goal of a minimum of 3.00 for each survey. Results of these surveys below 3.00 dictate that the instruction be monitored as described in paragraph 2 above.

4. Graduate Follow-UP Questionnaires. USAES surveys its graduates to determine problem areas in job performance. Upon reaching their first duty assignments, graduates of USAES courses are requested to return a special addressed card to the Quality Control Division. These cards are retained in a suspense file for four months. At that time, questionnaires are sent to the graduates for completion and return. Twice annually, collected data is summarized in a report to the teaching departments and staff agencies. This report identifies types of tasks performed and frequency, proper

utilization or malassignments, and any difficulties encountered in performing tasks taught at the School. A sample of a questionnaire used in this follow-up survey is inclosed as Incl 4*.

*Inclosures removed for sake of brevity

196

FACT SHEET

1. SUBJECT: Automated Means for Rating Classroom Recitations
2. PURPOSE: To explain the means of automating the grading of the classroom evaluations into an overall evaluation of speaking ability at the CGSC.
3. BACKGROUND: The program was developed to provide a method for grading the students day to day speaking performance in the classroom. The size of the Regular Class precluded the use of manual tabulation and recording of grades. Approximately 12-15,000 cards are handled during the academic year.
4. DISCUSSION:
 - a. The classroom evaluation program provides a means of evaluating the student officer during his classroom recitations. The program requires the instructor to use a standardized reprinted data processing form when grading classroom recitations.
 - b. The Instructor Observation Report (IOR), CGSC Form 202, Incl 1. When filling out the card the instructor is asked to address four areas: Content, Delivery, Time and PI (the potential of the student as an instructor at the Command and General Staff College). In the latter area, the instructor must determine if the student is or is not a potential instructor. If yes, he must mark one of the two self explanatory categories under yes. The reverse side of the card is used for comments the instructor desires to make concerning the student. These comments may be either favorable or unfavorable; however, they must be made when giving the student an A or U in content or delivery.
 - c. When the cards have been used for an evaluation and/or comments, they are forwarded through a designated channel for keypunching and/or processing. Automated processing at the data processing facility takes place once each month. All IORs along with a printout on each advisee are returned to the student officer's faculty advisor. The printout provides the advisor the number of reports, individual grades on each presentation and the average grade for all IORs that have been submitted up to the date of the printout. The advisor may use the information on the card for counseling, but is not allowed to show the card to the student. A minimum number of graded recitations is established prior to the beginning of the course and is announced to the students. Failure to meet the minimum number of recitations results in the student having to present an additional briefing on his own time.
 - d. At the end of the academic year the student officer will have an average grade for his classroom recitations. This average grade is then

combined with grades from another more formal speaking requirement to provide an overall speaking evaluation grade. The importance the classroom speaking grade takes in the overall speaking program is determined by the weight assigned to it. A convenient scale should be used so that it remains compatible with the schools grading system.

1 Incl
as

STUDENT NAME _____ Rank _____ Sec _____ No Rept Recd _____

INSTRUCTIONS

1. After completion of card, turn in to your Section Chief.
2. If you give an "A" or a "U" in content or delivery, you must indicate why in the comments section on the reverse side.
3. Circle one grade or rating for each category: Content, Delivery, Presentation Length and PI.
4. If PI "YES" is applicable, Item I or II must be circled.
5. Sign, date, and indicate subject number and lesson in space below.

CONTENT		DELIVERY	TIME	PI
A	A		0-5 Min	
B+	B+		6-10 Min	Unde- termined
B	B		11+ Min	NO
B-	B-			
C	C			
U	U			

YES

INSTRUCTOR _____

IMMEDIATELY AFTER GRADUATION _____

I

DATE _____

AFTER ADDITIONAL EXPERIENCE _____

II

Subject Number _____ Lesson _____

CGSC Form 202
71 Aug 19

INSTRUCTOR OBSERVATION REPORT

COMMENTS: _____

INITIALS:

Cl Dir _____

Fac Adv _____

2L3-0522-24,000-27 Aug 71

FACT SHEET

SUBJECT: Student Input to the Academic Evaluation Program

PURPOSE: Provide background information on the purpose, mechanics and uses of the student input to curriculum evaluation.

FACTS

1. The Armed Forces Staff College uses a system of student evaluations on a continuing basis to provide an up-to-date sensing of student reaction to the academic program.

a. The Director, Evaluation and Data Systems Group, AFSC, administers the academic evaluation program in accordance with the guidance of the Commandant and the specific direction of the Director for Instruction.

b. Student Memorandum Number 4 delineates the objectives and requirements of the Curriculum Evaluation System for the students. (TAB A)*

2. Evaluation programs in this category include the following elements:

- a. Daily Academic Evaluation Card Program
- b. Comment Cards
- c. Special Evaluations
- d. Examination Program
- e. End-of-Course Academic Evaluation
- f. Cumulative Evaluation Profile

3. Academic Evaluation Card Program

a. Each student submits at the end of each academic day, an evaluation card. (TAB B) Using a scale of 1 to 5, the student expresses his evaluation of the value of the instruction units rated that day. If he is extremely knowledgeable in the designated subject matter, he rates the instruction on the value to an uninformed student. Should the student rate the instruction as basically unsatisfactory ("1"), he is encouraged to submit amplifying comments on comment cards.

b. Data from the students' daily evaluation cards is then entered in a computer program which prints out average evaluations for each unit or period of instruction. These averages are by seminar, by class, and by service grouping. (TAB C)*

*Removed for sake of brevity

202

c. Print-out copies of the daily evaluation are furnished the Commandant, Director for Instruction and other key members of the faculty.

d. At the end of each major block of instruction, a summary of evaluations is prepared. This summary shows the class evaluation of lectures, seminar periods, and special items such as films or forums.

4. Comment Cards

a. Students are encouraged to submit comment cards at any time when they have constructive criticisms of any aspect of the academic program.

b. Comment cards are used also in conjunction with mid/end-of-course surveys and special evaluations.

5. Special Evaluations - Through coordination with the Director for Instruction, Group Directors and Faculty Advisors responsible for specific units of instruction may conduct evaluations of academic activities. For example, one such evaluation measured the student opinion of instruction, handout material, and student growth in knowledge during the unit. This evaluation further analyzed these opinions in relation to the students' seminar assignment for the instructional unit.

6. Examination Program. No graded examinations to determine student ranking are given at the AFSC. However, examinations to measure effectiveness of instruction are used. These are of two types: Service Week Examinations and Examinations of other curriculum blocks. The three Service Week Examinations consist of a pre-test given before the Service Weeks, and a post-test given on the last day of each respective Service Week. For all other instructional blocks, only a post-test is used. Analysis of these examinations is made to determine class knowledge of particular topics and to develop areas which may reflect weakness in instruction or failure to meet unit teaching objectives.

7. End-of-Course Academic Evaluation. This evaluation provides the student a means to evaluate the entire course in its major segments. In addition to answering the questionnaire which again uses a 1 to 5 rating system, the student may submit comments on any aspect of the course of instruction. The results of this evaluation are analyzed both statistically and subjectively to delineate academic areas for subsequent review and improvement.

8. Cumulative Evaluation Profile. At the close of each academic week a cumulative evaluation profile of the student ratings of all instruction is prepared. This profile reflects rating trends in the student class for seminar activities, lecture, and comment cards.

9. Computer Support for Evaluation Programs

a. The primary computer support is furnished by a time-sharing agreement with the U.S. Military Academy at West Point, using the GE-635 computer. Data is precessed by means of a teletype hook-up and a leased dedicated telephone circuit to West Point.

b. Additional support on infrequent basis is obtained from computer facilities operated by Fleet Marine Force, Atlantic and by the ADP section of CINCLANT Headquarters, both located in Norfolk, Virginia.

SUMMARY

10. The student participation in the academic evaluation program is considered a very useful element in management of the curriculum. This program provides the best vehicle discovered to date at AFSC for keeping a finger on the pulse of the student body. Many good ideas are surfaced through the comment cards. In addition, a number of students indirectly spotlight elements of the instruction that may not be as effective as desired; for example, when the student command makes it apparent that the student did not fully understand the material that was presented. Further, there is an intangible, but never the less important, psychological advantage in providing the student an avenue for communication with the management.

11. This student input must be considered in full appreciation of the subjective nature of the input. Many factors influence a student's attitude and consequently his judgement on the academic activity of any particular hour or day. Some of the influencing factors may be entirely non-academic. Thus, the directors of the academic program and users of the student evaluation output must avoid over emphasis on the statistical analysis of each day's activity. In particular, no comparison of one instructor with another should be drawn based on the numerical averages. To do so would be devastating to faculty morale.

12. The limitations above notwithstanding, the program is useful and a valuable tool for the curriculum manager.

SAMPLE EVALUATION CARDS

For Daily Evaluations (YELLOW)

ARMED FORCES
STAFF COLLEGE
ACADEMIC
EVALUATION
CARD

STUDENT NUMBER	DAY OF MONTH	EVALUATION COLUMNS														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0 0 0	0 0															
1 1 1	1 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2 2 2	2 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3 3 3	3 3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4 4 4	4 4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5 5 5	5 5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6 6 6	6															
7 7 7	7															
0 0 0	0															
0 0 0	0															

RATE EACH SESSION 1 THROUGH 5 ON THE BASIS OF ITS VALUE TO YOU. SESSIONS OF EXTREME VALUE SHOULD BE RATED 5 WHILE THOSE OF NO VALUE SHOULD BE RATED 1. BASE YOUR RATINGS ON KNOWLEDGE OR INFORMATION TRANSMITTED OR DEVELOPED AND NOT ON ENTERTAINMENT VALUE. IF YOU HAVE PREVIOUS KNOWLEDGE OF THE SUBJECT, RATE THE SESSION BASED ON YOUR JUDGMENT OF ITS VALUE TO UNINFORMED STUDENTS. SUBMIT COMMENT CARD, "GREEN CARD", IF YOU HAVE AMPLIFYING COMMENTS YOU WISH TO MAKE ABOUT THE INSTRUCTION. BE SURE YOUR "GREEN CARD" INCLUDES AN EXPLANATION OF "WHY" YOU ARE COMMENTING AND/OR "WHAT" YOU PROPOSE AS CORRECTIVE ACTION.

ARMED FORCES
STAFF COLLEGE
ACADEMIC
EVALUATION
CARD

STUDENT NUMBER	DAY OF MONTH	EVALUATION COLUMNS														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0 0 0	0 0															
1 1 1	1 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2 2 2	2 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3 3 3	3 3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
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RATE EACH SESSION 1 THROUGH 5 ON THE BASIS OF ITS VALUE TO YOU. SESSIONS OF EXTREME VALUE SHOULD BE RATED 5 WHILE THOSE OF NO VALUE SHOULD BE RATED 1. BASE YOUR RATINGS ON KNOWLEDGE OR INFORMATION TRANSMITTED OR DEVELOPED AND NOT ON ENTERTAINMENT VALUE. IF YOU HAVE PREVIOUS KNOWLEDGE OF THE SUBJECT, RATE THE SESSION BASED ON YOUR JUDGMENT OF ITS VALUE TO UNINFORMED STUDENTS. SUBMIT COMMENT CARD, "GREEN CARD", IF YOU HAVE AMPLIFYING COMMENTS YOU WISH TO MAKE ABOUT THE INSTRUCTION. BE SURE YOUR "GREEN CARD" INCLUDES AN EXPLANATION OF "WHY" YOU ARE COMMENTING AND/OR "WHAT" YOU PROPOSE AS CORRECTIVE ACTION.

213

FACT SHEET ON USE OF EDUCATIONAL
TESTING SERVICE TO CHECK NONRESIDENT
INSTRUCTION

1. In 1966 the "Haines Board" recommended that a nonresident course be established at the US Army War College so that more officers could be trained at the senior service school level to meet the needs of the Army. In 1967 the nucleus of the Department of Nonresident Instruction was formed and the writing of course material was begun. The design of the course was such that all information needed by the student would have to be included in the selected readings and texts accompanying each subcourse if the objective and scope of the subcourse was to be accomplished, and if the student was to be in a position to complete the subjective written requirement in a satisfactory manner.
2. It was felt that outside professional advice would be helpful to insure that the selected readings did indeed represent thorough and authoritative coverage of the scope, and that the requirements placed on the student were of graduate-level caliber and supported by the readings offered. The Army War College contracted with the Educational Testing Service (ETS) of Princeton, New Jersey, to examine each subcourse and its requirement, and provide a substantive analysis of strengths and weaknesses of the subcourse. This first contract was given to ETS directly because of the pressure of time; however, the contract for the review of the 2d edition was put out for bid. ETS was low bidder and received this contract also. Each revision of the nonresident course is accomplished over a two year period, thus the ETS review of a complete edition takes two years. The average cost of this review has been \$17,000. On an average the review consists of an examination of some 7000 pages of Army War College reproduced excerpts from approximately 600 authors, plus about 20 texts in their entirety.
3. The Army War College feels that the benefits derived from this professional review have been well worth the cost. All suggestions made by ETS based on its review of a draft subcourse are carefully considered by both the Department of Nonresident Instruction and the department responsible for the resident course which parallels this subcourse. Experience has shown that the ETS comments and suggestions have been substantive and helpful, and about 90% of these suggestions have been accepted and incorporated into the final subcourse.

**STUDENT EVALUATION PROGRAM
IN AIR COMMAND AND STAFF COLLEGE**

EVALUATION: The ACSC evaluation program provides data on curriculum effectiveness and student achievement.

a. Student Evaluation Procedures.

(1) The following table summarizes the main features of the student evaluation program:

<u>Areas of Evaluation</u>	<u>Per Cent of Overall Grade</u>
<u>Achievement tests</u> - retention and understanding of course material.	40%
<u>Performance reports</u> - attitude, seminar participation, problem solving ability, participation in electives, and general academic competence.	26%
<u>Research study</u> - ability to research a significant military problem, interpret and evaluate findings, and report results.	12%
<u>Writing and speaking</u> - effectiveness in situations normally encountered in command and staff positions.	22%

(2) The grade symbols defined below are used to express levels of achievement.

<u>Achievement Tests, Performance Ratings, and Research Report</u>	<u>Individual Writing/Speaking Assignments</u>	<u>Electives</u>
A (Outstanding)	S (Satisfactory)	O (Outstanding)
B+ (Excellent) B	U (Unsatisfactory)	S (Satisfactory)
C+ (Satisfactory) C		U (Unsatisfactory)

<u>Achievement Tests</u>	<u>Individual</u>
<u>Performance Ratings,</u>	<u>Writing/Speaking</u>
<u>and Research Report</u>	<u>Assignments</u>
	<u>Electives</u>

D+ (Marginal)

D

F (Unsatisfactory)

(3) An average cumulative grade of C and a satisfactory research study are requirements for graduation. On the basis of overall achievement, selected officers are designated "Distinguished Graduates." Elimination is in accordance with Air Force Regulation 53-15 and is a result of Faculty Board action.

(4) Officer Training Reports, Air Force Forms 475, are submitted for all students at the end of the school year in accordance with AFM 36-10 and supplements thereto. The Training Report is prepared on the basis of close faculty observation. Reports are reviewed and indorsed by senior officers and every effort is made to insure that the report reflects a valid evaluation of the individual student's performance at the Air Command and Staff College. Air University also maintains a permanent file of each student's cumulative grades.

(5) The faculty of the Air Command and Staff College is composed of officers carefully selected on the basis of individual background, experience, ability, and potential. Faculty members work directly with students and are primarily concerned with insuring that each student fully understands his assignments and treats all elements of the course of instruction in a logical, thorough and timely fashion. Necessary guidance and assistance is provided on a group as well as an individual basis. Continuous analysis and evaluation of individual student needs serve as a basis for counseling activities.

b. Course and Instructional Evaluation Procedure. Curriculum effectiveness is measured by: representative sampling of student reaction to lectures, seminars, and assigned reading material; faculty opinions of the adequacy of curriculum to provide a firm basis of understanding of the subject matter presented; and correlation of student and faculty opinions with results of achievement tests.

(1) Critique forms (questionnaires) used to record student and faculty attitudes are analyzed to extract both statistical and narrative information.

206

(2) Correlation of student and faculty attitudes with achievement test results forms the basis for defining corrective action for a more effective curriculum.

207

VII ELECTIVES

FACT SHEET ON TOAC ELECTIVES PROGRAM**I. GENERAL:**

The U. S. Army Transportation School Electives Program was instituted with Transportation Officer Advanced Course (TOAC) Class 1-68. The Electives Program (inclosure 1)* is a supplement to the core curriculum; is appropriate to course mission; and offers the students an opportunity to choose either common, progressive, or local electives according to his needs and interests. The USATSCH offers electives primarily in management and education, at graduate and undergraduate levels, as part of the Program of Instruction. Since the beginning of the Electives Program, 1,000 TOAC students have taken 2,000 college courses offered by local educational institutions, i.e., The College of William and Mary, Hampton Institute, Christopher Newport College, Thomas Nelson Community College, and George Washington University. Nearly all TOAC students choose college courses for their electives. Forty-four percent of the students so far have taken graduate-level courses, with the remainder taking undergraduate courses. Six TOAC classes are programmed for this fiscal year with one class reporting every other month. Normally, two classes take electives at the same time.

II. CURRENT STATUS:

A. CONARC Reg 350-1 (Para 8, Appx V, Anx Q) requires schools to provide "an effective, responsive counseling program for each student enrolled in the elective program..." Its objectives are to guide the student in his choice of electives and to monitor his progress. The counseling program at USATSCH is designed around the individual student and results in an education program tailored to his individual and professional requirements. Although it is geared to the electives portion of the POI, counseling begins before the student enters TOAC and continues after he graduates. To tailor a program to the individual requires answering certain basic questions, such as:

What is the student's educational level when he enters TOAC?

What are his immediate and long-range professional and educational objectives?

How do his objectives relate to DA, CONARC, and local School objectives? Or, how can they be brought into harmony with these objectives?

What "prescription" and what "timetable" will lead this student to his immediate and long-range professional and educational objectives?

B. Although the TOAC Electives Program offers hundreds of possible combinations of subjects from which the student can choose after he arrives at USATSCH, he is urged to take certain actions before he reports for TOAC.

270

The TOAC nominee receives a packet (inclosure 2)* which has a fourfold purpose: it describes the Electives Program; it asks for advance information on the student's civilian and military education background; it requests official transcripts be sent to the School; and it recommends that the student take CLEP and USAFI tests before he arrives for TOAC, if appropriate. With these documents in hand, the Special Assistant to the Commandant--Educational Advisor can begin to assess the student's preparation, aptitudes and goals and to suggest possible routes towards realizing his objectives. A worksheet, (inclosure 3)* is made up for the student for colleges and majors of his choice. Upon his arrival, the TOAC student is given specific guidance on electives that will fit his individual needs.

C. Because the USATSCH Electives Program dovetails with the DA educational objective of having each commissioned officer possess at least the baccalaureate degree, counseling includes encouraging the student to apply for civil schooling. The chart "Degree Programs for Army Officers (of interest to TC)" (inclosure 4)* was developed to detail the requirements of several degree programs, including application procedures. Related form letters, (inclosure 5)* guide the student in applying for civil schooling under the "Bootstrap" and the ROTC/Masters Degree program; fully-funded two-year programs are requested on the newly revised DA Form 1618-R. A sample letter requesting an unofficial evaluation by a college is given the student to guide him (inclosure 6)*.

D. Students' performance in electives courses and their state of preparation for degree programs are the most reliable tests of the counseling program. Seventy-five percent of TOAC students earn "B" or better on their electives; a third of each TOAC class goes on directly to civil schooling and nearly all of the remainder continue working on degree programs on their own after graduating from TOAC.

E. Although college courses related to TC and individual educational objectives make up the greatest part of the Electives Program, several other options are offered to challenge and reward the serious student. Among these are the cooperative research program with TC CDC, in which the student performs needed research under the general guidance of a CDC subject matter specialist; the ICAF correspondence course on National Security Management; and a combination common elective/research project under the technical supervision of the Director, Transportation Employment and Military Arts Department.

F. Students applying for graduate civil schooling are required to take either the Graduate Record Examination or the Aptitude Test for Graduate Study in Business. To prepare students for graduate schooling

following TOAC, both tests are offered to interested and eligible TOAC students early in the Advanced Course so that scores will be available to OPO TC in time to process the student's application to colleges, (inclosure 7)*.

*Inclosures removed for sake of brevity

212

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INFANTRY SCHOOL
Fort Benning, Georgia 31905

FACT SHEET ON: Elective Program in the Infantry Officer Basic Course

PURPOSE OF PROGRAM/PROJECT:

To provide a stimulating educational challenge for those particularly advanced, more experienced or adept students for whom certain subjects in the core curriculum would be repetitious.

DESCRIPTION/EXPLANATION:

1. USAIS has developed an elective program designed to further challenge the particularly advanced, more experienced or adept basic officer student.

2. The USAIS program consists of both required and voluntary electives. The general concept of the program is as follows:

a. Diagnostic tests and personnel records are used to identify individual students for whom parts of the core curriculum would be repetitious or unnecessary. All students may request to participate and those students excused from ten or more hours of core curriculum instruction are required to elect and complete subjects totaling at least $\frac{1}{2}$ the number of hours from which excused.

b. Instructional departments, members of the academic staff and USAIC staff agencies prepare, present and administer Advanced Instructional Courses and Self-Study Projects. Additionally, students may take selected correspondence courses through the Department of Nonresident Instruction.

c. A variety of instructional techniques are used, such as programmed texts, research papers, individual study, and courses offered through the Individual Learning Center.

FACT SHEET

SUBJECT: Electives Program

PURPOSE: To explain the Electives Program conducted at the US Army Signal Center and School

FACTS:

1. **Purpose and Scope.** The mission of the Signal School electives program is to provide an academic challenge, recognizing differences in student education, background, ability and needs, while emphasizing student choice.

2. **Objectives.**

a. To round out the student's military education by filling gaps in his earlier school or assignment experience.

b. To provoke the intellectual curiosity of the student by introducing him to stimulating subjects.

c. To encourage specialization in certain areas.

3. **General Breakdown.**

a. The elective year is broken down into four quarters, each of which is ten weeks long.

b. Four Advanced Course classes participate in each electives quarter, and each class participates in two quarters. An American student must select two electives in each quarter and when he has completed the electives program, he has taken four courses. A foreign student is required to take only one elective per quarter or a total of two electives during his participation in the program.

c. Classroom instruction is broken down into "A" and "B" frames. "A" frame classes are conducted on Monday and Wednesday afternoons and "B" frame classes are conducted on Tuesday and Thursday afternoons. Courses are divided evenly, with an equal number of graduate, undergraduate and non-credit college courses offered during each frame.

4. Requirements. There are four ways in which a student may satisfy the requirements for electives. He may enroll in a college credit course, a non-credit college course, a correspondence course or he may work on a tutorial project.

5. College Courses. The heart of the electives program is the college course curriculum.

a. There are presently three colleges participating in the program: Monmouth College, West Long Branch, New Jersey; Newark State College, Union, New Jersey; and Seton Hall University, South Orange, New Jersey.

b. Ten college credit courses are offered for both graduate and under-graduate credit. An asterisk denotes a strictly graduate course.

Monmouth College

Introduction to Psychology

Management Theory

* Management of Human Resources

Government and Business

College Algebra

Economics

Business Law

Principles of Accounting

Newark State College

* Social Psychology

Seton Hall University

Afro-American History

c. The course in Afro-American History is the newest addition to the curriculum. This course was first offered during the last winter quarter. The instructor is a member of the Black Studies Center at Seton Hall University and, prior to teaching this course at the Signal School, he attended the four-hour block on Black Studies that is part of the Advanced Course core curriculum. By the same token, the Signal School instructors that present the core hours on Black Studies enrolled in the Seton Hall course during the first quarter that it was taught. This was done to insure that the two courses logically supplement one another.

d. Fifty percent of all college instructors have their PhD degrees, and two are department chiefs at their particular colleges.

e. All costs involved in offering these college courses are borne by the government. The courses are paid for on a contract basis and the books are purchased by the government and issued to the students on a quarterly basis. At the end of each quarter, the books are turned in so that they may be reissued to a new class the following quarter.

f. The contracts allow us a maximum of 25 students per class for undergraduate courses and 20 students for graduate courses. In all cases, the instructor comes to the Signal School to give his instruction. He is assigned a classroom and all work is conducted at Fort Monmouth. There is no need for the student to go off post to earn these credits.

6. Non-college Courses. In addition to college credit courses, ten non-college courses are offered. They are referred to as "in-house" electives and are taught by members of the Signal School staff and faculty.

Effective Writing and Oral Presentation

Effective Reading

Basic Mathematics for Electronics

Spoken English

Personnel Management

Review of Calculus

Communism

Automatic Data Processing

Operations Research/Systems Analysis

Spanish

a. Oral Presentation is presented by the School's Instructional Methods Division and is much like the course given to prospective instructors. The emphasis is on the student actually making oral presentations.

b. The courses in Effective Reading and Basic Mathematics for Electronics are designed for students who score particularly low on mathematic and reading examinations that are administered to each new class during the first week of the Advanced Course. The reading examination measures both speed and comprehension. The mathematics examination measures the student's knowledge of the basic concepts of Algebra and Geometry.

2/6

c. The Spoken English course is designed for foreign students and with few exceptions, all take it as one of their electives.

d. Personnel Management is the newest addition to the in-house curriculum. Much of the material used in structuring the course is taken from material obtained from The Adjutant General School at Fort Benjamin Harrison.

e. The Review of Calculus course is presented by TV monitor with a proctor in the classroom to amplify the points presented, and answer any questions that may arise. The instructor is a professor of mathematics at Monmouth College. This is a review course and not an introductory course. A student must have had Calculus to take this course.

f. The ADP and OR/SA courses are progressive electives by CONARC directive.

7. Nonresident Courses. A student may select Army correspondence courses in various subjects from any of the proponent agencies listed in the CONARC directive. There are four courses that are most frequently selected by students.

a. Logistics Management and Maintenance Management courses taught by the Army Logistics Management Center at Fort Lee.

b. The Army Aviation Staff Officer's Course, which is taught by the Army Aviation School at Fort Rucker. This is of particular interest to our aviators.

c. The National Security Management course, which is taught by the Industrial College of the Armed Forces in Washington. This is advertised as a difficult course, designed for those students who have a baccalaureate degree and are willing to do extra work. It is a two-quarter elective because of its length, and students are given 20 weeks to complete the course.

d. All correspondence course applications must be approved by the Chief, Electives Branch.

8. Other Options. Should a student have a need for specific subjects, which cannot be satisfied by the electives curriculum offerings, there are a number of ways in which he may take these subjects and concurrently satisfy his elective requirements. These particularly apply to students needing specific subjects to apply to a program of study leading to degree completion. Any of the following must be approved by the Chief, Electives Branch:

a. A student may enroll in a course offered in the evening at the Fort Monmouth Education Center. These are taught by Newark State College and Jersey City State College. Fairleigh Dickinson also offers courses on a graduate level in the fields of Electrical Engineering, Physics, Mathematics and Management Science.

b. A student may enroll in an evening course at Monmouth College or Brookdale Community College in Lincroft, New Jersey.

9. Independent Research. A student may elect to work on an independent research project called a tutorial. The majority of tutorials are undertaken by students having a baccalaureate degree. A tutorial may be undertaken by a 10 to 20 week period. The majority are 20-week tutorials, to allow sufficient time for an in-depth research in a particular subject area. A technically qualified monitor is obtained for the student. The monitor's function is to supervise the student's research effort. The student must submit a paper in either thesis or staff study format. The paper is evaluated and graded by the monitor and is then filed in the Electives Branch. Papers that are exceptionally good may be selected for publication, under the author's byline, in Communications-Electronics Trend, a periodical published by the Signal School.

10. Miscellaneous. A student may work on a special project which is of interest to him. Each student is given an opportunity for a personal interview with the Electives Branch Chief to discuss his educational needs and to help him select elective courses which will best satisfy those needs.

FACT SHEET

SUBJECT: Controls Over Non-resident Instruction Electives

PURPOSE: To explain the controls established over non-resident instruction electives conducted at the US Army Signal Center and School

FACTS:

1. Upon approval of the Director of the officers school, a student may elect to work on a correspondence course offered through the non-resident instruction department of any US Army school. Emphasis is placed upon the courses listed as common electives in Annex Q of CONARC Regulation 350-1.

2. To insure that students maintain an acceptable progress rate in completing correspondence courses, there are certain controls that are exercised over students enrolling in these courses.

a. All administration pertaining to each course is handled by the Electives Branch. Applications, lessons and examinations are handed in to the branch and are in turn forwarded to the proponent agency. All grades are funnelled through the branch. The student does not deal directly with the proponent agency.

b. All dates that lessons and examinations are completed and turned in are recorded on a control sheet which is placed in a visual file. Examinations grades are also posted on this card. This file is available for student review at any time.

c. A peg board showing the student's progress in his particular course is maintained to allow the student to program his work over a 10-week span, the total time that the student has to complete the course from the time that he is issued the course material. This is the same amount of time that he would sit in a classroom course.

d. All work is identified with a special stamp prior to being forwarded to a proponent agency for grading. This assists proponent agencies in immediately identifying work from our students and helps prevent erroneous mailing of graded lessons and examinations.

3. Should a student become lax in maintaining an appropriate progress rate, the Electives Branch Chief discusses the problem with that student. If this does not produce results, the student's faculty advisor is notified.

319

FACT SHEET
ON
ADVANCED COURSE ELECTIVES PROGRAM

A. STATEMENT OF PROBLEM

The Electives Program evolved as a result of the Haines Board established by DA to review officer courses conducted at service schools. This study recommended that CONARC schools develop electives for the officers Advanced Course which would allow increased academic development of officers in areas of particular interest to them.

B. USAES PROGRAM

The objective of the program is threefold:

1. To broaden student's military education;
2. To permit the student to study areas that are of primary interest to him;
3. To permit qualified officers to participate in graduate or undergraduate programs leading to a degree.

The Director of Instruction is directly responsible for development, implementation and administration of the electives program. The student is responsible to devoting sufficient time and effort to satisfactorily complete the course.

The curriculum is designed to meet the majority of the student's needs. Specifically, there are four separate and distinct categories of electives:

1. Individual electives - As discussed in a separate Fact Sheet entitled, Fact Sheet on the Validation Program in the Advanced Course, individual electives allow the student to receive credit for core instructional material in which he has demonstrated proficiency. The vacated time may be used to pursue any area of study in which he feels deficient or would like to acquire advanced knowledge. These areas of endeavor may or may not be related to the course material.

2. School Taught Electives - Conducted concurrently with core instruction in two 15 week semesters including CONARC designated common and progressive electives as well as basic and advanced Engineer oriented courses..

3. University Taught Electives on campus - Conducted concurrently with core and school electives, these courses, taught by two local universities, provide credit in the graduate and undergraduate areas of Engineering, Management, Communications, and history.

4. University Taught Electives off campus - Any student desiring to pursue an individual program involving university taught courses not offered through the USAES may do so at his own expense. He may enroll in courses taught after duty hours at Fort Belvoir or in the immediate metropolitan area by any university or college and be excused from an equivalent number of electives courses taught in core curriculum. A portion of the expenses he incurs by electing this program may be offset by utilizing his GI Bill entitlements.

220

EOAC students take two electives in each of the 15 week semesters for a total of four elective courses. The course offerings each semester are balanced so that if at all possible, a student may follow a progressive program, i.e., Calculus I and Calculus II are not both offered in the first semester. Students select three courses each semester which permits the school to balance the class loads and at the same time meet the desires of the student. In 95% of the cases, the student is given his first choice, with the second course being assigned from his second or third choice.

*Inclosure removed for sake of brevity

221

VIII CIVILIAN EDUCATION

FACT SHEET

SUBJECT: Research Assistance Program with Army Research Office-Durham and Duke University

PURPOSE: To provide information on the operational functions, administration, procedures, and status of this program.

REFERENCE: AR 70-42, Research and Development, U.S. Army Research Office-Durham, dated 20 November 1969

FACTS:

1. The Army Research Office-Durham (ARO-D) is organized under AR 70-42, Research and Development, U.S. Army Research Office-Durham, dated 20 November 1969.
2. ARO-D provides research services for this Institute under the title of Scientific Services indicated in paragraphs 4c and 4g, AR 70-42. It provides services to a total of 83 Army commands, installations, and agencies including USAIMA. These users budget approximately three million dollars annually to pay for these services.
3. USAIMA instituted a research assistance program with ARO-D and Duke University to provide a responsive system for developing information essential to instructional requirements that was not available from official training literature or publications. This program is financially coordinated through ARO-D and operationally coordinated by a member of the faculty of Duke University.
4. Professor I. B. Holley, Jr., Department of History, Duke University, Durham, North Carolina, is a part-time staff member of ARO-D on a contract basis for a period of time equal to one-fourth of the academic year. Professor Holley acts as coordinator on research assistance requirements from the USAIMA staff and faculty.
5. A procedural brochure was developed to explain and advertise the methodology in obtaining this assistance (Incl 1). A local form was developed to assist the requester in identifying the requirement (Incl 2). The request is reviewed by the USAIMA staff to insure completeness, avoid duplication, and determine priorities. The request is forwarded directly to Dr. Holley who functions as the ARO-D/Duke coordinator. Follow-up communications are made directly between the requester and Dr. Holley.

FACT SHEET (continued)

SUBJECT: Research Assistance Program with Army Research Office-
Durham and Duke University

6. Dr. Holley solicits the research effort from graduate students and faculty at Duke. He coordinates and reviews the research work and forwards it to the Institute. He establishes communications with the requester when necessary to clarify or discuss the request. A copy of the final paper is provided to the Institute library as well as the individual requester.

2 Incl
as

INFORMATION SHEET

Instructors assigned to the Institute for Military Assistance and other elements at Fort Bragg should be aware of the supporting services available to them through the auspices of the Army Research Office-Durham, an Army facility located on the campus of Duke University in Durham, N. C. Under an existing arrangement instructors at Fort Bragg seeking assistance in the preparation of teaching materials may direct inquiries to Professor I. B. Holley, Jr. who serves in a liaison capacity with the academic community. Services available include: a) the preparation of bibliographies of books and articles available on any given subject specified by an instructor b) the provision of reproduced copies of articles from scholarly journals (instructor may provide a list of citations to be reproduced or he may ask to have such a list compiled for him) c) the recruitment of an academic specialist in an area of interest to a department or unit to consult on curriculum or to present one or more lectures as desired. Professor Holley makes frequent visits to Fort Bragg and will, on request, discuss in person with any interested instructor, the possibility of rendering service through AROD. Informal inquiries by phone may be directed to Professor Holley in Durham at 919-684-8111 Ext 3014.

Formal written requests for assistance should, when appropriately coordinated internally, be addressed as follows:

Professor I. B. Holley, Jr.
Department of History
Duke University
Durham, North Carolina 27706

To insure the best possible results, a form has been provided for such requests (copy at Incl 2 to Fact Sheet).

**SAMPLE FORMAT FOR USE WHEN
REQUESTING INFORMATION FROM
ARMY RESEARCH OFFICE-DURHAM (ARO-D)**

INSTRUCTOR'S NAME & RANK:

DATE:

DEPARTMENT:

MAIL ADDRESS:

PHONE NO.

- I. One line statement of problem in general terms.**
- II. Brief paragraph explaining background of subject area, indicating who, what, when, where, and why, to help focus the problem for the researcher.**
- III. Specific research objectives stated in a series of short, simple sentences.**
 - 1.**
 - 2.**
 - 3. etc.**
- IV. Bibliography consulted already by instructor (to be listed here to avoid duplication of effort by researcher).**
 - 1.**
 - 2.**
 - 3. etc.**
- V. Bibliography known by instructor but not available at Fort Bragg. (List here citations of books and articles turned up in footnotes etc. from readings available at Fort Bragg that seem to hold promise of yielding fruitful results.) Where desired, researcher will Xerox copies for the instructor.**

For further information write or call:

**Professor I. B. Holley, Jr.
Department of History
Duke University
Durham, North Carolina 27706**

**Commercial Phone: Area Code 919, 684-8111
Autovon: Extension 3014
935-3331
Extension 3014**

FACT SHEET

1. SUBJECT: The Master of Military Art and Science (MMAS) Program

2. PURPOSE: To explain the Master of Military Art and Science Degree Program which is designed to permit the Commandant annually to award the degree to those students who have demonstrated the prescribed level of excellence.

3. BACKGROUND:

a. Purposes:

(1) Produce a limited number of military researchers capable of a high degree of scholarship; and to --

(2) Make significant research contributions to military art and science, to include identifying, defining, and solving problems.

b. Military Art and Science:

A field of study concerning the development, operation, and support of military forces in peace and war and the inter-relationships of military, economic, political, social, psychological, and other elements of national power when military force is used to achieve national objectives.

4. DISCUSSION:

a. Admissions and Completion Criteria:

Students are admitted to the program by the Director, Graduate Studies and Research under the following admissions criteria:

US Student, Regular Course
Volunteer
Baccalaureate Degree
Graduate Record Exam
Evaluation of Writing Ability
Quality of Thesis Proposal

b. Statistics:

	<u>63-64</u>	<u>64-65</u>	<u>65-66</u>	<u>66-67</u>	<u>67-68</u>	<u>68-69</u>	<u>69-70</u>	<u>70-71</u>
Admitted to program	33	32	28	28	39	29	10	36
Submitted thesis	23	25	20	16	26	19	4	23
Thesis accepted	21	22	20	16	23	19	4	22
Relieved-Academic	2	0	0	0	0	3	0	0
Completed Program	19	22	20	16	23	16	4	22

c. Legislative and Accreditation History of the MMAS Program:

17-18 April 1967: HEW Review Committee Visited CGSC, submits favorable report.

7 July 1967: Secretary, HEW, approves legislative proposal.

8 February 1968: H.R. 15231 introduced into House.

19 March 1968: Hearings, subcommittee, House Armed Services Committee.

25 April 1968: H.R. 15231 Approved by House Armed Services Committee.

6 May 1968: H.R. 15231 passed by House.

3 January 1969: Bill submitted by S/A to 91st Congress.

18 November 1969: Bill sponsored by Senators Dole & Goldwater as S-3148.

August 1971: Senate Bill S1105 introduced by Senator Goldwater (for himself and Senator Dole) has been concurred in by Air Force and Navy and sent to OSD for further action.

d. Operation Procedures (see definitions at Incl 1):

(1) During the first week of the academic year the MMAS candidate is required to submit two problem statements indicating his general areas of interest. These problem statements are screened by the Interdisciplinary Committee which assigns an advisor from the Graduate Research Faculty who is competent in the candidates area of interest. The candidate prepares a draft research proposal for approval by the advisor. After revision, a final proposal is submitted.

(2) Based on the proposal, two additional members of the Graduate Research Faculty are assigned to the candidate's committee based on the recommendation of the advisor. Simultaneously two members of the Consulting Faculty are assigned the candidate's committee.

(3) From October through March the candidate conducts his research in close coordination with his advisory team (using the Consulting Faculty for assistance by correspondence or short personal visits to CGSC by Consulting Faculty members where feasible).

(4) From March through May the candidate brings his thesis into final draft form for submission in late May. From late May to mid-June the Research Advisory Committee reads the thesis and the candidate prepares for

his oral defense. Oral defenses are conducted in mid-June. The entire Research Advisory Committee (to include Consulting Faculty who are then on active duty at CGSC) conducts the oral examination of the candidate.

(5) Successful candidates are determined by the Executive Committee of the Graduate Faculty and are recognized at a graduation ceremony conducted at the end of the third week in June. It should be noted that MMAS candidates remain at CGSC approximately two and one-half weeks subsequent to graduation from the Regular Course.

1 Incl
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230

Graduate Research Faculty - This group is composed of those faculty members who, because of their acquired expertise within a field of specialization, are capable of advising students engaged in research within that field and of evaluating its results. The Graduate Research Faculty consists of designated officers of the College Staff and Faculty, the Combat Systems Group, and the Post complement.

Interdisciplinary Committee - This group is composed of one member from each academic department, a representative of Combat Systems Group, and the Director of Graduate Studies and Research. It screens MMAS candidate problem statements to perform the following functions:

1. Determine whether a qualified individual is available on the Graduate Research Faculty to advise the candidate in his research.
2. Determine whether library resources are available or readily attainable to support the research.
3. Assign the principal advisor to each candidate.

Executive Committee of the Graduate Research Faculty - An agency of the Graduate Research Faculty which performs the following functions.

1. Submits to the Commandant, for approval, proposed policies of the Graduate Research Faculty governing the operation of the MMAS Program.
2. Implements approved policies pertaining to operation of the MMAS Program.
3. Determines which students have successfully completed requirements for the degree of Master of Military Art and Science and submits the records of those recommended to the Commandant for approval and certification or degree conferral.

Research Advisory Committee - A Research Advisory Committee consisting of the Thesis Adviser as chairman, two other resident members of the Graduate Research Faculty, and one or more members of the USACGSC Consulting Faculty will be appointed for each candidate. The tasks of the committees are to--

1. Assure that the degree requirements are met and that the overall performance of the candidate merits award of the MMAS degree.
2. Monitor the research of each student.
3. Conduct the Oral Comprehensive Examination.
4. Certify the thesis as satisfactory.
5. Evaluate the writing ability of students in accordance with qualitative criteria published in conjunction with CGSC Subject R110, Communicative Arts.

The Consulting Faculty - This group of reserve officers, selected from the faculties of colleges and universities, serves the staff, faculty and students of the USACGSC in a variety of ways--as consultants on academic matters, as classroom instructors, as seminar leaders or participants, as research consultants to individual students and as members of examining committees for MMAS degree candidates. As research consultants they interact with students directly during their periods of active duty (ranging from a few days to several weeks), and at other times by mail or telephone. Although members of the Consulting Faculty are assigned primarily to advise MMAS degree candidates and to participate as members of instructional departments, they are also available, within the limitations of personnel and time, to all who have need of their expertise. Use of the Consulting Faculty as research advisers is coordinated by the Director, Graduate Studies and Research. Student contacts with members of the Consulting Faculty are arranged through the assigned Research Advisers.

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FACT SHEET

- 1. SUBJECT:** Graduate Elective/Degree Completion Program (former title Cooperative Degree Program)
- 2. PURPOSE:** To explain the Graduate Elective/Degree Completion Program, an arrangement whereby officer students of the Regular Course may, in co-operation with one of three local universities, pursue graduate degree programs and complete a Masters Degree, part of which is satisfied by studies taken under the CGSC Electives Program.
- 3. BACKGROUND:**
 - a. Purposes:**
 - (1) Provide officer students of the Regular Course the opportunity to pursue graduate studies while attending the CGSC.
 - (2) Provide officer students of the Regular Course the opportunity to complete a Masters Degree Program, in cooperation with one of three local universities -- Kansas University, Kansas State University, and University of Missouri - Kansas City.

b. History: In August 1969, the Army Chief of Staff, General William C. Westmoreland, in his guidance on the Army Education System, designated the CGSC as the focal point of a system of continuing education through which award of a Masters Degree in an appropriate discipline by the cooperating university would be the goal. The Commanding General, CONARC, directed that such a program be established at CGSC commencing FY 71. Intensive negotiations with local universities ensued which resulted in the Cooperative Degree Program being inaugurated as an integral part of the 70-71 CGSC school program for Regular Course students. One hundred eighty eight officer students of the class of 71 participated in the program commencing with the fall semester. Of this number 63 were selected by OPO branches to continue their studies at one of the cooperating universities upon graduation from the CGSC. Due to faulty impressions and misconceptions acquired by the students in light of the title affixed the program, it was retitled "Graduate Elective/Degree Completion Program," commencing with the 1971-72 SY. This too was in keeping with guidance provided the CGSC by General Haines, CG, CONARC, who suggested that consideration be given to taking the word degree out of Cooperative Degree Program, during his visit on 10 June 1971.

- 4. DISCUSSION:**
 - a. Graduate Elective Program.**
 - (1) The graduate elective program is an arrangement between the CGSC and civilian institutions -- presently the University of Kansas, Kansas State

253
University, and University of Missouri - Kansas City -- whereby officer students of the Regular Course may pursue graduate programs with the cooperating universities while attending the CGSC. It provides the student the opportunity to engage in graduate level work through the College's elective program and is designed to accommodate those officers desirous of working toward a Masters Degree in a service related discipline.

(2) The cooperating universities present resident credit courses at the CGSC which satisfy advanced degree requirements. Qualified students who have been accepted into a degree program or as graduate students by the university concerned will take such courses as their CGSC elective. Other courses available only on the home campus of the university may be attended in lieu of a regularly scheduled elective course for specifically qualified students, if they do not conflict with scheduled CGSC activities.

(3) Officer students admitted to graduate elective offerings may continue to pursue such courses while attending the CGSC provided they maintain a "B" average in both the CGSC common curriculum and the graduate elective. Those who fail to maintain "B" averages during the first semester are not eligible to enroll in the graduate elective program the second semester.

(4) Masters Degree programs are offered in the following disciplines:

- (a) Political Science
- (b) History
- (c) Business (MBA & MS)
- (d) Communications in Human Relations
- (e) Public Administration

b. Degree Completion Program.

(1) The degree completion program is predicated on the participant completing his degree within a six month period of full time attendance at one of the cooperating universities after graduating from the CGSC (a summer term, and a fall term). Model programs depicting how this may be accomplished are shown at Incl 1. In order to have a reasonable chance of completing the degree under this plan, the officer student should arrive at CGSC with at least six hours of transferable graduate credit applicable to one of the disciplines. Programs requiring one year requirements are shown at Incl 2.

(2) Selection of officer students enrolled in the graduate electives for full time study is accomplished by the OPD, DA. However, the Office of the DGSR does provide OPD the following type information regarding the applicants:

- (a) Recommendation for continuing study by the cooperating university.

237
(b) Length of time required for completion of the masters degree.

(c) Number of semester hours needed for completing the masters degree requirements.

(d) Class standing at CGSC.

Officers who do not meet the academic requirements for continued study at the graduate level are not recommended for degree completion by the DGSR.

2 Incl
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Basic Program: MA/MS with thesis -- 30 Hours

Maximum Transferable Credits	--	6 Hours
Attainable while at CGSC	--	6 Hours
Thesis	--	6 Hours
Course Work in Residence	--	<u>12 Hours</u> 30 Hours

Model 30 Hour Program: CGSC + 6 Months

Graduate Credit Prior to CGSC	--	6 Hours
Graduate Level CGSC Electives	--	6 Hours
Thesis Begun at CGSC	--	6 Hours
Summer In Residence	--	3-6 Hours
Semester In Residence	--	<u>6-9 Hours</u> 30 Hours

INCL 1

Model 30 Hour Program: CGSC + 1 Year

No graduate credit prior to CGSC	
Graduate Level CGSC Electives	-- 6 Hours
Thesis Begun at CGSC	-- 6 Hours
Summer in Residence	-- 6 Hours
Fall Semester	-- 6 Hours
Spring Semester	-- <u>6 Hours</u> 30 Hours

Model 36 Hour Program: CGSC + 1 Year

Graduate Credit Prior to CGSC	-- 6 Hours
Graduate Level CGSC Electives	-- 6 Hours
Summer in Residence	-- 6 Hours
Fall Semester in Residence	-- 9 Hours
Spring Semester in Residence	-- <u>9 Hours</u> 36 Hours

Model 36 Hour Program: CGSC + 1 Year

No Credit Prior to CGSC	
Graduate Level CGSC Electives	-- 6 Hours
Summer in Residence	-- 6 Hours
Fall Semester in Residence	-- 12 Hours
Spring Semester in Residence	-- <u>12 Hours</u> 36 Hours

23 September 1971

FACT SHEET

SUBJECT: Follow-on Graduate Program (4F-1181 Course)

PREPARING AGENCY: USAADS (Contact point: LTC Hilmo, AUTOVON 978-6500)

DISCUSSION:

1. Background. The 4F-1181 Guided Missile Systems Officer Course is a 33-week branch-immaterial course of comprehensive instruction in the engineering sciences which provides commissioned officers with a working knowledge of essential material pertaining to research and development, testing analysis, and military application of guided missile systems. The course is taught at undergraduate college level and covers the subject areas of mathematics, electronics, mechanics, control theory, guidance, computers, propulsion, aerodynamics, operations research, and missile design.

2. Purpose: The purpose of the follow-on graduate program is to allow 4F-1181 graduates to pursue graduate degrees in engineering or the physical sciences. Students interested in the Officer Graduate Degree Program (AR 350-200) submit completed applications for graduate studies to OPO DA.

3. Description. A follow-on graduate program was established through coordination with the University of Texas at El Paso (UTEP) and OPO DA in 1968 to allow 4F-1181 graduates to pursue graduate studies at the University. Under the provisions of this program, selected graduates, in competition with other applicants for civilian schooling, attend UTEP for 12 to 18 months and obtain Master of Science degrees in engineering. Fields of study are normally mechanical engineering, guided missile engineering, electrical engineering and operations research/systems analysis. On occasion, students obtain degrees in nuclear engineering or physics.

a. Selection procedures. The selection procedure for a student to participate in this program is:

(1) Prior to reporting for the 1181 course, each interested student applies for civil schooling under the provisions of the Officer Graduate Degree Program (AR 350-200). He must take the Graduate Record Examination and furnish the results to his career branch, the Air Defense School, Missile Science Division, and the graduate dean of UTEP.

239

(2) Following approximately 12 weeks of instruction in the 1181 course, the Air Defense School recommends selected students for participation in graduate-level schooling to DA. Recommendations are based upon the individual's academic ability and attitude toward advanced work in engineering and the physical sciences. Final selection is made by the applicant's career branch.

b. 1181 student advantages. There are several definite advantages to the follow-on graduate program:

(1) Graduates of the 4F-1181 course can obtain a Master's degree in a shorter period of time.

(2) Graduates of the 4F-1181 course are given appropriate credit if deficiencies exist in their undergraduate studies which enables them to:

(a) Enter a graduate program with less than a B average or 3.0/4.0 in their undergraduate major.

(b) Eliminate most undergraduate omissions prior to their entering a graduate field of study other than their undergraduate major.

(3) Officers sent to graduate school upon completion of the 4F-1181 course experience no difficulty in adjusting immediately to the rigorous academic environment.

(4) There is no moving expense to the Army for officers going directly from the course to UTEP. Also, the cost of schooling at UTEP is considerably less expensive than most other universities or colleges.

(5) Close and continual coordination is maintained between USAADS and UTEP which facilitates acceptance, admission and monitoring of programs of study. This facet plays a large part in the success of the on-going program.

c. Future plans. Action has been initiated to change the 4F-1181 prefix designator to 5L-1181 which more correctly places this course in the professional series. Future plans are to include New Mexico State University as a second participating academic community allowing a more diverse selection of field in which to study. The most immediate improvement in the program will be to obtain college credit, transferable to universities and colleges throughout the country, for the subjects taught in the 1181 course. The fact that all instructors in the course possess advance degrees is a significant aid in pursuit of this aim. Currently, USAADS is preparing to request that 6 hours of this credit be applied to graduate level study.

CONCLUSIONS:

1. The follow-on program to the 4F-1181 course furnishes the Army with highly qualified specialists in the engineering and physical science fields who also have a broad educational background in guided missile development.
2. The program offers a bright incentive to apt career officer students at a very apropos time in their career to obtain educational and career advancement.

340

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INFANTRY SCHOOL
Fort Benning, Georgia 31905

FACT SHEET ON: Integration of USAIS Educational Effort With Post GED Program

PURPOSE OF PROGRAM/PROJECT:

To help each student attain branch or career goals through individual counseling and a variety of college credit courses and assistance programs intended to facilitate each student's progress toward a baccalaureate or advanced degree.

DESCRIPTION/EXPLANATION:

1. Prior to integrating the USAIS Elective Program and the Post GED program, each student desiring to improve his general educational development had to go to several different locations on post in order to receive the many services offered. This time consuming process presented an obstacle which encouraged individual procrastination and often resulted in personnel not taking advantage of the programs available to them.
2. Under the integrated effort program, the individual student may receive the following assistance through the Electives Branch office located in the vicinity of his normal classroom area: all general education counseling; evaluation of academic credit earned; United States Armed Forces Institute Subject Standardized Tests and College Level Examination Program--General Examinations (CLEP-GE); fee-exempt Graduate Record Examination or Admission Test for Graduate Study in Business; guidance in preparing applications for the Department of the Army Two-Year College Equivalency Evaluation, Officer Undergraduate Degree Program, Degree Completion Program, Advanced Civil Schooling, Advanced Degree Program for ROTC Instructor Duty, admission to the school of his choice, and tuition assistance; enrollment in the subject of his choice offered in the Elective Program; and typing assistance in completing applications for any of these programs.
3. This program has been effective in encouraging students to find out what opportunities are available to them, how the various programs operate, and actually take the necessary steps to enroll or apply for admission in the program they want. Considerable emphasis is placed on informing the student how he may progress toward attainment of a baccalaureate or advanced degree through a combination of the programs available, e.g., college

241

FACT SHEET ON: Integration of USAIS Educational Effort With Post GED Program

electives offered as part of the Advanced Course Elective Program, tuition assistance for college courses offered at Fort Benning during off-duty hours, and participation in one of the Degree Completion Programs offered by Department of the Army.

242

**LEADERSHIP AND EDUCATIONAL DEVELOPMENT
DEPARTMENT, US ARMY ARMOR SCHOOL**

PURPOSE

To provide information on the Electives Program and its relationship with the Community College.

FACTS

1. Intent. To assist in preparing the Armor Officer Advanced Course graduate for future assignments by providing a more comprehensive opportunity for intellectual and professional development. The objectives of the electives program are to provide the AOAC student with intellectual challenge, academic diversity, and the opportunity for study in depth. The electives program seeks to provide a variety of courses tailored to meet individual academic interests and differing professional career patterns.
2. Type Courses.
 - a. Courses are of three types: USAARMS courses developed by and for the Armor School; University of Kentucky courses, taught by accredited members of the Electives Division faculty; and correspondence courses.
 - b. University courses are offered in cooperation with the University of Kentucky. Fees are paid by the Armor School. (For details of costs see Inclosure 1).
 - c. The Fort Knox Community College is affiliated with the University of Kentucky. The Electives Division operates in cooperation with the Community College as concerns accreditation of instructors, registration of students and billings. The Community College offers its courses in the evenings as opposed to the electives program which offers its courses during duty hours. The Community College has been unable to provide instructional support during the day, therefore it has been necessary to use Department of the Army personnel to teach university courses in the electives program. At this time the Community College is not a degree granting institution; however, it is anticipated that approval will be granted for them to offer degrees in Psychology and Political Science this fiscal year.
3. Length. The Electives Program is 24 weeks long and runs concurrently with the AOAC core curriculum. The program is divided into two 12-week semesters. Students normally take two electives courses in each semester. Electives courses

are scheduled during normal duty hours for 2-hour periods meeting twice weekly for a total of eight hours.

4. **Subject Areas.** Electives courses are offered in seven major academic areas: (1) History; (2) Political Science and International Relations; (3) Communicative Arts; (4) Management; (5) Social and Behavioral Sciences; (6) Scientific and Technical Studies; and (7) Military Arts. Courses within these broad areas will change from class to class depending on the needs and desires of each advanced class and on the instructional capabilities of the faculty of the Electives Division. (For typical class schedules see Inclosure 2).*

5. **Requirements.** Each student is required to complete at least 200 credit hours of electives subjects to be selected from subjects offered by the Electives Division. Students are allowed to complete courses with other educational institutions such as the Community College, the University of Louisville, or USAFI in order to fulfill their electives requirements. Resident Courses (University of Kentucky and USAARMS) carry 50 credit hours each; correspondence courses carry varying credit hours. With minor exceptions, for university courses, 50 credit hours are equal to 3 semester hours. Completion of 200 credit hours is required for graduation from the Advance Course. Students not receiving a satisfactory score on the Cooperative English Test must enroll in Review English, and only students who have achieved a satisfactory score on the Princeton Pre-Engineering Test are permitted to enroll in the Nuclear and Chemical Target Analysis Course. Students are discouraged from selecting courses solely on the basis of the type credit given for the course. A student's academic interests and professional needs - not his simple search for college credit - should be given primary stress in the selection of his electives courses. The correspondence courses are offered primarily for those students whose academic and professional needs are not fully met by resident courses offered.

6. The success of the Electives Program depends on the availability of qualified personnel with advanced degrees who can be cleared to teach courses with the University of Kentucky. These qualified personnel are secured from two major sources: the Armor Officer Basic Course and the US Army Training Center, Armor. Recent changes in the draft laws have reduced the availability of instructors from these two sources. Application for instructional personnel are processed through the Community College.

*Inclosure removed for sake of brevity

244

COSTS

1. The Armor School has an Educational Service Agreement (Contract) with the University of Kentucky. The schedule of course fees is as follows:

<u>LEVEL</u>	<u>COST PER STUDENT/COURSE</u>	<u>*MINIMUM COURSE COST</u>
100-200 (Freshman & Sophomore)	\$40.50	\$720
300-400 (Junior & Senior)	44.00	792
500 (Undergraduate)	44.00	864
500 (Graduate)	59.00	864

*Minimum course cost will not apply when cost per student for number of students enrolled is equal to the minimum course cost.

2. In consideration for use of Department of Army personnel for instructors the University of Kentucky credits the Government with the amount of instructors salaries as follows:

100-200 level	\$575 with Bachelors Degree 600 with Masters Degree 675 with Doctorate
300-400 level	660
500 level	720

3. Costs for typical classes have been as follows:

<u>CLASS</u>	<u>GROSS</u>	<u>NET</u>	<u>SAVINGS BY USING GOVT. EMPLOYEES</u>
AOAC 3-70	\$14,138.00	\$5,978.00	\$8,160
AOAC 4-70	15,553.50	6,193.50	9,360
AOAC 501-70	13,183.50	4,053.50	9,130
AOAC 1-71	17,577.50	8,067.50	9,510

95
PROGRAM TO ATTAIN MBA IN COMMUNICATIONS MANAGEMENT

The US Army Signal Center and School (USASCS), in association with the New York Institute of Technology (NYIT), proposes to permit students who attend the Communications-Electronics Systems Engineer Course to simultaneously earn a Masters of Business Administration in Communications Management (MBA) Degree. In order to be eligible to participate in the program, a student must possess a Bachelor's Degree and certain course prerequisites.

NYIT will conduct all instruction at Fort Monmouth. In order to earn an MBA, the student will have to complete 42 graduate credit hours of instruction. These credit hours will be earned by:

- a. Completing six 3-credit hour courses, each of which is taught during one full week of instruction. Two courses will be taught near the beginning of the C-E Course and four courses will be taught at the end of the C-E Course.
- b. Completing seven 3-credit hour courses which will be integrated with the regular C-E Course. These are referred to as mini courses and vary in length from 15 to 18 hours. NYIT examined the C-E Systems Engineer Course Program of Instruction (POI) and determined that existing instruction parallels NYIT courses. In each instance, a mini course follows appropriate POI instruction, and together equate to a completed graduate course. It should be highlighted that the course accreditation of the C-E Systems Engineer Course is an entirely new approach. Instead of evaluating a given segment of that course and giving a specified amount of credit, NYIT is evaluating that given segment of the course and then tailoring or "filling-in" the necessary instruction to make that segment academically acceptable by normally recognized standards. The USASCS and NYIT treatment of a given subject are dovetailed into a cohesive semester hour block.
- c. Completing a 3-credit hour thesis within six months after completing all resident instruction, and having the thesis accepted by NYIT.

In the event that a student possesses a Bachelor's Degree, but not the necessary prerequisites to enter the MBA program, NYIT will conduct seminars at Fort Monmouth to fulfill the prerequisite requirements.

The proposed agreement to enable students of the C-E Course to earn an MBA Degree involves no cost to the Army. Course registration and tuition payments will be concluded directly between the individual student and NYIT. The revised cost to each student will be \$2,120.00. NYIT has indicated that the Veteran's Administration (VA) will consider each student as a full-time college student and VA allowances will pay for the student's education. USASCS is only obliged to furnish classroom and office space for NYIT instructors. Furthermore, it is understood by all concerned that the NYIT program will not interfere in any way with the C-E Systems Engineer Course.

246

USASCS is prepared to implement the MBA program and has requested that CONARC approve the students attendance at this school three weeks before and four weeks after the normal C-E Systems Engineer Course commencing with Class 55 starting on 4 January 1972. The increase in time is required to accommodate the presentation of prerequisite courses and the six 3-credit courses which are to be presented by NYIT at the beginning and at the end of the regular C-E Systems Engineer Course.

Air Force Management of the Civilian Education Program*

1. This management is vested almost exclusively in the Directorate for Civilian Institutions at AFIT. A number of features distinguish this program. At the heart of the system is a viable data base, which is called the Transcript Repository. In this automated filing system, AFIT has the jacket files on 105,000 officers who have entered the Air Force since 30 June 1952. The educational transcript of every officer is with his file. This information is also on tape at Maxwell Air Force Base and it is used by Randolph Air Force Base in their normal personnel actions. This data base gives instant information on the educational status of every officer in the Air Force personnel system. It is used intensively to determine who is eligible for advanced civilian education, who is available for it, and who will volunteer for it. Also, it has permitted the Directorate of Civilian Institutions to relate the data they have on their files, primarily the educational transcript, to the promotability of the officer; so they avoid the embarrassing situation of sending officers to advanced civilian education and seeing them subsequently or immediately thereafter fail a promotion.
2. Using this excellent Transcript Repository as a basis, the Directorate for Civilian Institutions evaluates all officers of the Air Force for their suitability, etc, for advanced civilian education. The number of officers who are required at a given time in given skills is provided to the Directorate for Civilian Institutions from the Air Force Educational Requirements Board. This Board is roughly comparable to the Army Board. It is headed by a General Officer and has 20 colonels providing an Air Force-wide representation.
3. The requirements as stated by the Board and the characteristics and availabilities of possible candidates are married up in the Directorate for Civilian Institutions. Based on its analysis of the individual's record and the specific requirement involved, the Directorate for Civilian Institutions issues a letter of eligibility to the individual officer concerned. This officer, in turn, indicates if he is interested in the advanced civilian education and, if so, when, where, and the specific Air Force Specialty Code Number which he expects to gain as a result of this education. The name of this officer and other candidates for the same position go to Randolph Air Force Base on tape. At Randolph, another Board sits and makes the final selection of the individual officers to receive the specific education for the specific Air Force job.
4. The Directorate for Civilian Institutions provides approximately four to five thousand records to the board at Randolph for the 1800 annual spaces which are open. Availability of the highest caliber officers remains a

* This fact sheet was prepared by the reviewing officer and cleared with AFIT.

241

continuing problem, particularly in the pilots and navigators slots. The number of pilots and navigators in advanced civilian education should be approximately 900; actually, there are about 250 this year. This performance is expected to improve as Vietnam requirements phase down.

5. Once having selected an individual officer for training for a specific slot, AFIT formalizes the entire arrangement by an education plan which actually is a three-way contract between the individual officer, AFIT, and the institution conducting the instruction. It indicates exactly what the officer intends to take by term or semester and exactly what the School intends to give him and exactly where he will be when he ends up. The Directorate for Civilian Institutions feels that this is their best single management tool and they place a great deal of faith in it.

This Directorate is most impressive; they feel they are on top of their job, and have thought a lot about it. Their two basic principles:

a. The most expensive factor in the entire civilian educational program is the officer's time, so the program manager must do everything he can to conserve this.

b. The most valuable single asset which the Directorate of Civilian Institutions can have is credibility with the civilian institutions it conducts business with. Regardless of how difficult the individual situation may be, the Directorate of Civilian Institutions must always level with the civilian institution concerned.

6. Two tangential programs which this Directorate runs include the Commander's Option Program and the Minute Man Education Program. The Commander's Option Program provides a few spaces for each of the major commands, on a personal basis. This permits the command concerned to select a specific individual, usually a front runner, to a specific course based solely on the commander's decision that this is the right thing to do for the young man at that time. The Minute Man Education Program involves approximately 700 Launch Site Control Officers annually. In the words of the Program Director, it is an administrative nightmare, but there's no way to avoid it. The possibility of incorporating SAFEGUARD officers in the Minute Man Education Program was raised; we should look into this when SAFEGUARD is fielded. In addition, this Directorate runs an Airman's Education and Commissioning Program whereby 330 enlisted men annually get an opportunity to get a baccalaureate degree and thereafter go on to officer training.

THE ARMY CRYPTOLOGIC INSTITUTE (ACI)

1. Introduction. The staff and faculty of the US Army Security Agency Training Center and School (USASATC&S), Fort Devens, Massachusetts, are constantly searching for new and innovative ways of improving the performance of the Army's cryptologic mission and, at the same time, enhancing the ability of the Agency to attract and hold talented personnel for a full career. Recently, the USASATC&S developed the broad outline of a concept for an Army Cryptologic Institute.

2. Objectives. The objectives of the Army Cryptologic Institute are as follows:

- a. To attract quality personnel to serve in the US Army Security Agency (USASA).
- b. To improve the USASA's preparedness posture.
- c. To improve performance of military and technical cryptologic duties.
- d. To provide incentives for career commitment.
- e. To provide a sense of accomplishment.
- f. To make USASA officers more competitive.

3. Concept. The institute envisioned would provide opportunities for officers and enlisted personnel to engage in academic programs that have been unavailable to them heretofore. The programs would provide basic and advanced military and technical cryptologic training and education that would not only meet the needs of the Army of the future and the aspirations of the individual soldier, but also would be academically respectable. The programs, therefore, would include both technical and general educational objectives. Officers would be educated more broadly for technical, managerial, and command positions. Officers with degrees would be encouraged and assisted to pursue advanced degrees at established universities. Enlisted personnel would receive up to a full year of education and training before assignment to field units, and they would be provided opportunities to return to the Institute for additional education at selected points in their careers.

4. Programs. The Army Cryptologic Institute's programs would be developed at the college undergraduate level, leading first to an associate degree and ultimately to a bachelor's degree in cryptology. The types of degree programs and majors or fields of concentration to be offered are shown in figure 1 (attached).

5. Scheduling. The scheduling system would permit a reasonable sequence of courses, achieve the objective of systematically developing the knowledge and skills of students, and provide strong motivation for the participants to remain in the Army. Although it would be possible to use any one or a combination of several scheduling plans, the trimester plan appears to be the most flexible and manageable. With this plan it would be possible for an individual to earn up to 15 semester hours of credit in 1 trimester, or 45 semester hours in 1 calendar year. Therefore, approximately 4 trimesters would be needed to earn the associate degree and 9 trimesters (3 calendar years) to earn a baccalaureate. Formal education would be interspersed with field assignments, and additional military commitments would be required at certain points in the program. These commitments would be adjusted so as to require minimum commitments of 6 years of service for the associate degree and 10 years for the bachelor's degree.

6. Eligibility. Enrollment in the degree programs could be optional. Candidates for associate degrees would have to be high school graduates and meet established course standards during their first trimester of course work to matriculate. Candidates for the bachelor's degrees would be required to complete successfully the Scholastic Aptitude Test of the College Board Examination and have been awarded the associate degree (or its equivalent) prior to matriculation.

7. Transfer of credits. Because many students would have completed some ACI degree requirements, provisions would be made for transfer of credits. These measures would enable students to take advantage of college-level work completed prior to their entry into the service and apply off-duty, college course credits, earned during assignments to field units, to the ACI degree programs.

1 Incl

Figure 1 (Degree Programs)



<u>DEGREE PROGRAMS</u>	<u>ASSOCIATE IN SCIENCE IN CRYPTOLOGY</u>	<u>BACHELOR OF SCIENCE IN CRYPTOLOGY</u>
<u>INPUTS</u>	<u>FIELD OF CONCENTRATION</u>	
MOS 98B	Cryptanalysis	
MOS 98C	Traffic Analysis	
MOS 74-	Data Processing	
MOS 05H 05K 98G	Communications Intelligence Collection	
MOS 05D	Special Identification Techniques	
MOS 05G	Communication Security	
MOS 98J	Electronic Intelligence Collection and Analysis	
MOS 33-	Electronics	
Officers / SNCO	Collection Management	
Officers / SNCO	Military Management	

inch. 1.

252

Fact Sheet
in Support of the Follow-up on
MG Norris' Visit

18 November 1971

SUBJECT: Tactical Operations Center (TOC)

1. In 1965 the United States Army Security Agency Training Center and School (USASATC&S) was required to release much of its hardware used for instruction in order to meet increasing military commitments elsewhere in the world. As a result of this action, both officer and enlisted courses were required to train personnel without the benefit of "hands-on" training. Furthermore, students and faculty were critical of programs of instruction that failed to prepare students for their future job assignments. In May of 1971 the USASATC&S faced the problem of how can we teach job performance behaviors and give students "hands-on" training with no equipment.
2. To answer this problem the USASATC&S began a process of analyzing the behavior of ASA officers. This resulted in a detailed job performance description of the ASA officer. After this was completed, the USASATC&S then began an exhaustive search for academic substitutes for real Army hardware; that is, materials which could be used to simulate actual equipment. The culmination of these two efforts was the Command & Staff Department's Tactical Operations Center (TOC). The TOC is a low-cost - less than \$7,000 - academic substitute which simulates all of the capabilities of a composite ASA tactical unit. Nearly \$2,000 of the TOC's cost is concerned with the development of peculiar intelligence teaching requirements which the USASATC&S has identified and are beyond the scope and interest of service branches outside of the intelligence community. However, the remainder of TOC is of considerable interest to other branches. The TOC is essentially an attempt at combat simulation. The TOC presently occupies two classrooms which measures approximately 2,500 square feet. However, the TOC can easily be emplaced in four Army M 292 expandible vans. The facility in its classroom configuration consists of a blue room and a red room. The blue room contains a 12' x 25' terrain board, student cubicles, an eight-net seventeen-station brigade radio system which link the student cubicles, 1:40,000 tactical maps of the terrain board, a controller's position, and assorted HO model military equipment. The red room contains a mock communications center, an 8' x 16' map projection of the terrain board, a division tactical operations center, and several sources for the collection and analysis of combat intelligence. The TOC requires the student to perform behaviors and activities in a multitude of areas. Some of the areas in which students must perform are provided and examples are listed. This is by no means a finite list, but rather, only illustrates the areas tested.

3. Areas requiring performance objectives.

a. Tactics - Examples

- (1) The student must make estimates of the situation.
- (2) The student must formulate operations orders.
- (3) The student must deploy his forces.
- (4) The student must call in artillery strikes.
- (5) The student must call in tactical air strikes.
- (6) The student must manage battalion/brigade size units.

b. Logistics - Examples of Maintenance and Supply Requirements.

- (1) The student must submit equipment improvement reports.
- (2) The student must implement modified work orders.
- (3) The student must estimate and requisition all classes of supplies.
- (4) The student must institute preventive maintenance programs.

c. Map Reading - Examples

- (1) TSM use and read maps.
- (2) TSM maintain situation maps.

d. Radio Procedures - Examples

- (1) TSM use correct radio prowords.
- (2) TSM use the phonetic alphabet.
- (3) TSM practice good COMSEC.
- (4) TSM use military terminology.

e. Composition of US Army Units - Examples

- (1) The student must be able to assess any Army unit's combat capability and employ it to the maximum advantage to influence the combat situation.

SUBJECT: Tactical Operations Center (TOC)

18 November 1971

(2) The student must carry out staff functions and identify and assign actions that are appropriate to various staff levels.

f. Personnel and Management - Examples

(1) The student must manage personnel and resources.

(2) The student must co-ordinate, control, and supervise the completion of project.

g. Intelligence - Examples

(1) Examine and evaluate collateral intelligence.

(2) By design the ASA TOC has an extremely broad and diverse capability with reference to intelligence performance behavior.

4. The TOC was designed primarily as an answer to ASA's demand for training junior officers. However, the rank or grade level at which TOC activities can be conducted is extremely flexible. It can be used for training enlisted personnel or senior officers with appropriate modification. Some projected uses for the TOC are:

- a. Training ASA reserves.
- b. Training and evaluating active Army units in the area of COMSEC.
- c. Conduct CPX's for active and reserve Army unit personnel.
- d. Use in instructing the Reserve Officer Training Course.
- e. Use in working with civilian children who are either gifted or are mentally retarded.

It is recommended that the Army examine the possibilities of utilizing the TOC throughout its various and multi-faceted educational programs.


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Major, MI
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IX ACADEMIC MANAGEMENT

51

FACT SHEET
ON
FISCAL AND MANAGEMENT CONTROL OVER EDUCATIONAL COSTS

A. STATEMENT OF PROBLEM

In a time of declining resources, increased emphasis must be placed on the efficient utilization of resources. It is therefore essential to establish a positive program to identify and manage all costs associated with the conduct of instruction at USAES to insure maximum return for the educational dollar.

B. USAES PROGRAM

The FY72 Engineer School total funding situation has been analyzed on a course cost basis as a management tool. The estimates for FY72 costs by course of instruction have been broken into mission support costs and personnel support costs, including civilian and military. Indirect costs were prorated to the courses of instruction on a student-day basis. Only two basic assumptions were made: (1) that the number and grade of civilian and military personnel assigned in FY72 will be in accordance with TDA 1A-W1D6AA-71/05/19; and, (2) that the USAES workload will be as shown in USAES Pamphlet 350-1, Schedule of Classes FY72, dated 1 June 1971. The results of this cost analysis are shown subsequently.

The procedure for developing course costs consisted of two steps. First, the teaching departments, Department of Nonresident Instruction (D/NRI), Office of Doctrine and Training Development (ODTD), and the School Brigade prepared their cost breakdown as to where military and civilian personnel time should be charged. The USAES Management Office prepared the costs for all other elements of the USAES. Second, cost information was consolidated and overhead costs were prorated on a student-day basis to all courses of instruction; D/NRI; and ODTD.

Analysis indicates that any major savings resulting from management improvements will have to be primarily in the personnel area since 95.1 percent of the total costs of operating the Engineer School are "people" costs. These costs are divided 71.0 percent military and 24.1 percent civilian. When the direct and overhead costs are compared it is seen that 67 percent are direct costs, an excellent ratio indicating a good balance in administrative and supervisory personnel.

Forty-eight courses are planned for FY72. It is also enlightening to know that five of these courses contribute 59.5 percent of the total costs. The second five most costly courses contribute an additional 16 percent of total costs; thus, ten courses contribute 75.5 percent of the total costs. On the other hand, the 24 least costly courses (50 percent of total) contribute only 8.5 percent of the total costs. To date we have considered eliminating only those courses in the bottom half of the cost scale, which contribute relatively little to the total cost picture. Conversely, any major savings in funding will have to result from economies in the ten most expensive courses.

258

Total cost is a trade-off between the number of students attending the course during the year and the length of time of the course. To better understand this trade-off, the daily course cost per student, as well as the total cost per student, have also been computed. It can be seen that the variation in the daily costs per student are great, ranging from \$73.80 per day for Process Photography to \$6.98 per day for the Engineer School Staff Officer Refresher Course. It can be also noted that the most costly courses per student are not always the lengthiest courses. The generality can be made that the most costly courses per student are often in the Department of Topography, therefore, the total personnel structure in this department must be carefully scrutinized to insure that we are not overinstructing.

The next concept that comes to mind is the fact that these are sunk costs, i.e., when a course is set up it is based on requirements stated and approved by Department of the Army and the material, the instructors, the classrooms and the equipment are on hand awaiting the student inputs. Last year there was a net 14.6 percent shortfall of student inputs to the Engineer School. When this student shortfall per course is multiplied by the total costs per student obtained from this study, the cost to the Army of the shortfall amounted to \$2,404,741. On the other hand, any overprogramming of students is a cost savings since it should reduce the subsequent year's requirements.

In summary, the Engineer School can and must tighten up on costs using the best available data for analysis. The overhead allocations appear to be reasonable. Mission support money appears to be inadequate. Savings can be made only in the reduction of personnel. Personnel requirements are the function of good management as well as student input and length of course. However, it is felt that even the most stringent management improvement savings at the Engineer School could not compare to the cost to the Army for shortfalls in input to established training organizations.

FACT SHEET ON USATSCH BOARD OF VISITORS

I. BACKGROUND:

A. The Board of Visitors is constituted on authority of the Secretary of the Army, who approves the appointment of its members. It consists of one retired general and seven eminent civilian educators. The general officer normally will have had extensive experience in the military school system and/or military transportation. Remaining members are distributed among the fields of business administration (transportation), engineering (aeronautical, transportation, civil, nuclear and other fields of Transportation Corps concern), professional education and other academic areas. Appointments are for three-year terms. The U.S. Army Transportation School Special Assistant to the Commandant--Educational Advisor serves as Executive Secretary.

B. Meetings of the Board of Visitors are held for approximately three days, twice annually, normally in the spring and fall, at times mutually convenient to members and to the School.

C. The Board of Visitors is somewhat analogous to an evaluation committee appointed by an accrediting agency to determine institutional quality. Its academic representatives are from other institutions of acknowledged quality who are in a position to evaluate the Transportation School in the light of their education and experience.

II. CURRENT STATUS:

A. At present the Board of Visitors consists of a retired general officer; the Reverend Laurence B. Britt, S.J., Dean of the School of Arts and Sciences, John Carroll University; Dr. Jack T. Turner, Dean of the College of Commerce, West Virginia University; Dr. Woodrow W. Wilkerson, Superintendent of Public Instruction for the Commonwealth of Virginia; Dr. John A. Bailey, Director of the Transportation Center, Northwestern University; Professor Harmer E. Davis, Director of the Institute of Transportation and Traffic Engineering, the University of California at Berkeley; Dr. William A. Hunter, Dean of the School of Education, Tuskegee Institute; and Dr. Robert M. Saunders, Dean of the School of Engineering, the University of California at Irvine.

B. The Board does not attempt a comprehensive exploration of the School at each meeting. Normally, it evaluates only one or several aspects of the School. Members investigate designated areas by attending briefings presented by departments concerned, interviewing students, visiting classrooms and studying reports. They discuss areas under study and make suggestions to the Commandant for improvement. The Board also evaluates actions taken on previous Board recommendations.

C. The Board has considered such areas as: requirements for qualified instructors; the Faculty Development Program; tests and measurements; evaluation of the School by students; characteristics of student input; and development

366

of instructional material. They have made recommendations of substantial value which have resulted in major command decisions leading to the improvement of School programs. The Board's findings and recommendations are published and distributed to interested departments.

FACT SHEET

1. SUBJECT: Establishment of Department of Graduate Studies and Research
2. PURPOSE: To describe the composition of the Office of the Director of Graduate Studies and Research (DGSR) at the CGSC, and the reasons for its establishment.
3. BACKGROUND: Prior to November 1970, responsibilities for the CGSC MMAS Program, Graduate Electives Program, Consulting Faculty Program were spread among three separate staff sections. Responsibility for general supervision of student research was not clearly delineated.

In November 1970, the Office of the DGSR was created and charged with responsibility for the following activities:

- a. Electives (formerly with Director of Resident Instruction (DRI)).
- b. Degree Completion Program - new program, jointly supervised by the DRI and the Director of the Master Degree Program (DMDP).
- c. Consulting Faculty (formerly with the Director of Nonresident Instruction).
- d. Master of Military Art and Science Program (formerly with the DMDP).
- e. Student Research (supervision was spread among the DMDP, DRI, and the several instructional departments).

4. DISCUSSION:

- a. Graduate Programs with civilian universities -- This major facet of the Electives Program is now supervised by the DGSR to insure that graduate electives offered are logical stepping stone courses for those individuals who are interested in the Degree Completion Program.
- b. The MMAS Program receives major support from members of the Consulting Faculty. Supervision of the Consulting Faculty (see Fact Sheet on Consulting Faculty) and control over the timeliness of their active duty tours at CGSC has provided closer working relations with the Graduate Research Faculty (see Fact Sheet on MMAS Program) and more meaningful advice to the MMAS candidates.
- c. Supervision of student research accomplished as a part of either the MMAS program or the Electives Program is now the responsibility of the DGSR. Close coordination has been established by the Department of Command and the

262

Department of Larger Unit Operations to insure that treatise input into their programs are properly evaluated and that important research contributions are properly recognized and distributed.



263 DEPARTMENT OF THE ARMY

UNITED STATES ARMY MISSILE AND MUNITIONS CENTER AND SCHOOL
REDSTONE ARSENAL, ALABAMA 35809

FACT SHEET

SUBJECT: Microfiche Information Retrieval System

1. PURPOSE:

a. To determine an effective and efficient method to insure that officer students have access to applicable documents to complement their studies and to use as references for the conduct of term projects.

b. To provide copies of the most recent studies, documents, projects, doctrine, reports and etc., for Officer Training Department's continuing education program.

2. DISCUSSION:

a. Research revealed that the majority of material required to support a reference data bank of the type envisioned was readily available from Defense Documentation Center, the Library of Congress, Logistics Management Center, Combat Developments Center, and other DA and DOD agencies. However, the accumulation of this wealth of information posed insurmountable problems from two standpoints:

(1) Cost of material. (Several agencies would furnish applicable documents only at cost)

(2) Storage, maintenance, file requirements, and a trained librarian to catalogue must all be costed; a luxury that can be ill afforded in an austere environment. Accordingly, it was decided to explore the microfiche retrieval system.

b. Procedure:

(1) Indices furnished from the Logistics Management Center and Defense Documentation Center are reviewed and appropriate material (MOS related) is selected for the recommended reading file.

(2) Custom bibliographies are furnished from both centers. These bibliographies contain a call identification, time frame, classification, originator and a brief abstract of the document.

261

(3) Microfiche copy, furnished at no cost, is supplied by the Defense Documentation Center. Arrangements are in progress whereby automatic distribution of applicable documents will be made to Officer Training Department thereby insuring constant updating of the data bank. A microfiche card, measuring 4" X 6" contains 60 pages. It becomes readily apparent that storage and maintenance problems are minimized. Filing is accomplished alpha-numerically by the call number assigned by DDC.

(4) Custom bibliographies are updated on an "as required" basis by both centers on request.

(5) Microfiche readers are purchased at a nominal cost (approximately \$90.00 each), for student and instructor use. Maintenance problems are minimized as there are no moving parts while replacement bulbs are readily available at approximately \$.50 each.

3. USE OF THE SYSTEM:

a. Officer students are briefed during course inprocessing on the use of recommended reading list, its contents and its location.

b. Bibliographies are made available to the students who can then select the material appropriate to their studies. They then draw the microfiche and a reader from a central source and conduct study and research at their convenience.

4. RESULTS:

a. Can be implemented with no additional resources and a minimum expenditure of funds for microfiche readers.

b. Provides an efficient and effective source of external material (not available through normal distribution channels) that facilitates the conduct of research for completion of term projects.

c. Provides the student with a broader core of knowledge in his area of speciality.

d. Provides up to date information from which instructors can glean factual data for courses conducted for special students.